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TYPE SPECIMENS OF BRYOPHYTES IN THE NATIONAL MUSEUM OF NATURAL SCIENCES, NATIONAL MUSEUMS OF CANADA

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ABSTRACT

The type specimens of bryophytes in the Bryophyte Herbarium of the Museum of Natural Sciences are listed. Types of 848 moss and 86 liverwort taxa are catalogued, listing the authority, literature citation, kind of type, locality information, collector number or date, CANM accession number and current accepted name for each taxon. The type specimens from the valuable Macoun herbarium are recorded separately from the specimens received from other sources.

RÉSUMÉ

Les spécimens types de bryophytes consignés à l'herbier du Musée national des sciences naturelles sont énumérés dans ce travail. Les types de 848 mousses et 86 hépatites sont catalogués et contiennent les renseignements suivants: citation des noms d'auteurs et de la bibliographie, genre de type, localité, numéro de récolte ou date, numéro d'homologation dans CANM et nom d'usage courant de chacun des taxons. Les spécimens types de l'inestimable herbier Macoun sont enregistrés séparément des autres spécimens.

ACKNOWLEDGEMENTS

We are especially grateful to M.J. Shchepanek, National Museum of Natural Sciences, Ottawa, who assisted in searching the Bryophyte Herbarium for type specimens. We thank Drs. W.R. Buck, New York Botanical Garden, N.G. Miller, New York State Science Service, Albany, R.E. Stotler, Southern Illinois University, Carbondale, and D. Lamy, Laboratoire de Cryptogamie, Paris, for checking literature references for some of the types. We appreciate the assistance of Véronique Pourbaix, who checked the Macoun references and typed the initial list of specimens while she was a student under the 1982 Career-Oriented Summer Employment Program. Finally, we thank the National Museum of Natural Sciences library staff for providing many of the references.

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INTRODUCTION

This catalogue lists all the type specimens of bryophytes (mosses - MUSCI and liverworts - HEPATICAE) in the National Museum of Natural Sciences (CANM) in Ottawa. It is intended as an aid to researchers who need to locate type specimens required for their studies. Searching for types is often a laborious and time-consuming job which can be expedited by a catalogue listing the holdings of an institution. We hope that this catalogue will be of assistance to scientists throughout the world.

The type specimens in the catalogue are divided into the following two groups:

1) TYPE SPECIMENS FROM MACOUN'S HERBARIUM. These specimens are part of the John Macoun herbarium which he collected or were collected and sent to him by James M. Macoun (his son), R. Bell, A. Brinkman, G.M. Dawson, J. Dearness, J. Fletcher, J. Fowler, A.P. Low, J. Moser, C.F. Newcombe, W. Palmer, A.C. Waghorne and J. White. Most of the taxa were described by the Swedish bryologist N.C. Kindberg, and the holotypes are presently at the Swedish Museum of Natural History (S) in Stockholm.

The various problems with the Macoun types have been discussed by Steere and Crum (1977). Though some of his specimens in CANM are clearly marked as being new (e.g. "n. sp.", "n. subsp." or "n. var."), a great number have no indication of the "type" designation at all. However, they seem to fit the protologue perfectly, so we are reasonably certain that they are types. Regardless of whether they are marked or not, other problems exist as well. Often the information on the label does not correspond with the protologue in every detail; sometimes part of the locality description does not match, while in other cases the date does not agree. The numbers on the labels and packets, often several different ones, are meaningless and are rarely cited in the protologue. Whenever some part of the label data does not match the protologue, a "?" is placed after the kind of type in the catalogue. The types without a question mark appear more clearly to be bona fide types, but in the final analysis it is up to the specialist studying the specimens to decide.

2) TYPE SPECIMENS FROM OTHER SOURCES. These specimens form the remainder and bulk of the types in CANM. They were obtained primarily from other institutions and were collected by numerous people. Most of these specimens appear to be types since the label data matches the protologue, but the type is questioned whenever there is a problem regarding the exact data.

The catalogue lists the name (basionym) of the taxon, followed by the authority and the literature citation for the protologue. Below the taxon is the kind of type(s), followed by the information on the label, including locality data, collector, collector's number, if listed, or the date if not listed, an exsiccat name and number when applicable, and the CANM accession number on the packet. The current accepted name is given below following basically the nomenclature of Wijk, Margadant, and Florschütz (1959-69), with recent additions in Crum, Steere and Anderson (1973) and Ireland et al. (1980) for the mosses and Stotler and Crandall-Stotler (1977) for the liverworts.

Besides assisting scientists locate type specimens for their studies, this catalogue should help curators in other herbaria locate types among their collections which may have escaped notice. This is especially true of the Macoun collections which were widely distributed throughout the world. At the same time, our herbarium may contain additional types that we presently do not know exist, and we would be grateful for any information about those that we have overlooked.

TYPE SPECIMENS FROM MACOUN'S HERBARIUM

(All specimens collected by J. Macoun unless stated otherwise)

MUSCI

Amblystegium dissitifolium Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 220. 1892.
SYNTYPES. Canada: Ontario, Niagara Falls, 24 September 1891 (CANM 197756); Ontario, Owen Sound, 16 September 1891 (CANM 197757).
= *Conardia compacta* (C. Müll.) Robins.

Amblystegium distantifolium Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 222. 1892.
SYNTYPE. Canada: Newfoundland, New Harbour, *A.C. Waghorne*, 16 August 1890 (CANM 197758).
= *Hygroamblystegium tenax* (Hedw.) Jenn.

Amblystegium serpens ssp. columbiae Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 279. 1890.
ISOTYPE. Canada: British Columbia, 1 mi. from Sicamous, 19 July 1889 (CANM 197960).

Anacolia aristifolia Flow. *in* Grout, Moss Fl. N. Amer. 2: 156. 1935.
ISOTYPE. Canada: British Columbia, Vancouver I., Cedar Hill, 21 May 1887 (CANM 197360).
= *A. menziesii* (Turn.) Par.

Andreaea macounii Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 83. 1890.
ISOTYPES? Canada: British Columbia, highest slopes of the mountains N of Griffin Lake, Gold Range, alt. 6500 ft., 1889, CANADIAN MUSCI 401 (CANM 197761); British Columbia, mountains N of Griffin Lake, 11 August 1889 (CANM 197762).
= *A. nivalis* Hook.

Andreaea sparsifolia var. sublaevis Kindb., Ottawa Nat. 7: 17. 1893.
ISOTYPE. Canada: British Columbia, Vancouver I., Carmanah, *J.M. Macoun*, 9 May 1892 (CANM 197763).
= *A. rupestris* var. *acuminata* (B.S.G.) Sharp

Anoectangium canadense Kindb., Ottawa Nat. 14: 86. 1900.
ISOTYPE. Canada: British Columbia, Vancouver I., 7 May 1875 (CANM 197764).
= *Amphidium californicum* (C. Müll.) Broth.

Anomodon heteroideus Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 172. 1892.
SYNTYPES. Canada: Ontario, Owen Sound, 10 September 1890 (CANM 197767); Ontario, Owen Sound, 16 September 1890 (CANM 197766); Ontario, Ottawa, McKay's woods, October 1885 (CANM 197768).
= *Leskeella nervosa* (Brid.) Loeske

Anomodon platyphyllus Kindb., Ottawa Nat. 7: 19. 1893.
SYNTYPES. Canada: Ontario, CANADIAN MUSCI 256 (as *A. obtusifolius* Bruch & Schimp.) (CANM 197770). Ontario, Belleville, October 1868 (CANM 197772); Ontario, Ottawa, October 1884 (CANM 197773); Québec, Rivière Rouge, 1870 (CANM 197771).
= *A. minor* (Hedw.) Fürnr.

Atrichum leiophyllum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 275. 1890.
ISOTYPE. Canada: British Columbia, Vancouver I., Mount Arrowsmith, 18 July 1887 (CANM 197775; 197776).
= *Oligotrichum parallelum* (Mitt.) Kindb.

Atrichum rosulatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 148. 1892.
ISOTYPE? Canada: British Columbia, Revelstoke, 9 May 1890 (CANM 197777).
= *A. selwynii* Aust.

Aulacomnium palustre var. laxifolium Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 145. 1892.
ISOTYPE. Canada: British Columbia, Roger's Pass, 6 August 1890 (CANM 197778).

Barbula andreaeoides Kindb., Rev. Bryol. 32: 36. 1905.
ISOTYPES. Canada: British Columbia, McArthur Pass, 10 August 1904 (CANM 197780); British Columbia, Lake O'Hara, 10 August 1904 (CANM 127780).
= *Didymodon subandreaeoides* (Kindb.) Zander

Barbula brachyangia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 59. 1892.
ISOTYPE. Canada: Québec, Anticosti I., 3 September 1883 (CANM 197781).
= *Tortula norvegica* (Web.) Lindb.

Barbula brachyphylla var. **angustifolia** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 55. 1892.
ISOTYPE. Canada: British Columbia, Deer Park, Lower Arrow Lake, 8 June 1890 (CANM 197782).
= *B. vinealis* Brid.

Barbula chrysopoda C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 57. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, 17 May 1890, CANADIAN MUSCI 216 (CANM 197784); British Columbia, Revelstroke, 17 May 1890 (CANM 197783; 197785).
= *B. convoluta* Hedw.

Barbula circinnatula C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 57. 1892.
ISOTYPE. Canada: British Columbia, Agassiz, 8 May 1889 (CANM 197786).
= *B. cylindrica* (Tayl. *ex* McKay) Schimp. *ex* Boul.

Barbula convoluta var. **obtusata** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 220. 1892.
ISOTYPE. Canada: Ontario, Owen Sound, 16 September 1890 (CANM 197787).

Barbula decursivula Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 264. 1892.
ISOTYPE. Canada: British Columbia, Stephen, 15 August 1890 (CANM 197788).
= *B. fallax* Hedw.

Barbula horridifolia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 57. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, 9 May 1890, CANADIAN MUSCI 542 (CANM 197789).
= *B. cylindrica* (Tayl. *ex* McKay) Schimp. *ex* Boul.

Barbula inclinatula C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 50. 1892.
ISOTYPES. Canada: British Columbia, in the old bed of the Illicillewaet, near Revelstoke, 27 May 1890, CANADIAN MUSCI 512 (as *B. (Tortella) inclinatula* C. Müll. & Kindb.) (CANM 126423); British Columbia, near Revelstoke, 27 May 1980 (CANM 197790); British Columbia, Revelstoke, 27 May 1890 (CANM 126422).
= *Tortella inclinata* (Hedw. f.) Limpr.

Barbula laeviuscula Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 265. 1892.
ISOTYPE. Canada: Alberta, Banff, 6 July 1890 (CANM 197791).
= *Tortula ruralis* (Hedw.) Gaertn., Meyer & Scherb.

Barbula lato-excisa C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 60. 1892.
ISOTYPE. Canada: British Columbia, Cedar Hill, near Victoria, 20 May 1887 (CANM 197793).
= *Tortula princeps* De Not.

Barbula leptotricha C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 60. 1892.
ISOTYPE. Canada: Manitoba, Lake Winnipegosis, 16 July 1881 (CANM 197794).
= *Tortula intermedia* (Brid.) De Not.

Barbula macrorhyncha Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 50. 1892.
ISOTYPE. Canada: Ontario, North Hastings, 16 August 1874 (CANM 197795).
= *Aloina rigida* (Hedw.) Limpr.

Barbula megalocarpa Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 92. 1889.
ISOTYPE? Canada: British Columbia, Vancouver I., near Victoria, 21 April 1887, CANADIAN MUSCI 79 (CANM 132902).

Barbula melanocarpa C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 54. 1892.
ISOTYPE? Canada: British Columbia, Yale, 18 May 1889 (CANM 197797).
= *Didymodon occidentalis* Zander

Barbula cenea C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 55. 1892.
ISOTYPE? Canada: British Columbia, Revelstoke, 19 May 1890 (CANM 197798).
= *Bryoerythrophyllum recurvirostrum* (Hedw.) Chen

Barbula papillinervis C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 60. 1892.
SYNTYPES. Canada: British Columbia, Cache Creek, 25 May 1875 (CANM 197799); British Columbia, Revelstoke, 23 May 1890 (CANM 197800); British Columbia, Arrow Lake, 18 June 1890 (CANM 197801).
= *Tortula pulvinata* ssp. *papillinervis* (C. Müll. & Kindb.) Par.

Barbula platyneura C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 52. 1892.
ISOTYPE. Canada: British Columbia, Deer Park, Lower Arrow Lake, 11 June 1890 (CANM 197792).
= *Pseudocrossidium revolutum* (Brid. *in* Schrad.) Zander

Barbula pseudo-rigidula Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 264. 1892.
ISOTYPE. Canada: British Columbia, Lytton, 17 April 1889 (CANM 197802).
= *B. cylindrica* (Tayl. *ex* McKay) Schimp. *ex* Boul.

Barbula robustifolia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 56. 1892.
SYNTYPE? Canada: British Columbia, Vancouver I., 5 May 1875 (CANM 197803).
= *B.cylindrica* (Tayl. *ex* McKay) Schimp. *ex* Boul.

Barbula ruralis ssp. alaskana Kindb., Sp. Eur. & N. Amer. Bryin. 2: 249. 1897.
SYNTYPE? United States: Alaska, Unalaska I., *J.M. Macoun*, 14 September 1892 (CANM 197804).
= *Tortula ruralis* (Hedw.) Gaertn., Meyer & Scherb.

Barbula sparsidens C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 54. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, 3 May 1890 (CANM 197805).
= *B. fallax* Hedw.

Barbula subandreaeoides Kindb., Rev. Bryol. 32: 36. 1905.
ISOTYPE. Canada: British Columbia, Yoho Valley, 6 September 1904 (CANM 197806).
= *Didymodon subandreaeoides* (Kindb.) Zander

Barbula subcarnifolia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 52. 1892.
ISOTYPE. Canada: Ontario, Pelee I., 13 June 1882 (CANM 197807; 197808).
= *Desmatodon porteri* James *ex* Aust.

Barbula subcuneifolia Kindb., Ottawa Nat. 5: 196. 1892.
ISOTYPE. United States: Alaska, St. Matthews I., Behring Sea, *J.M. Macoun*, 10 August 1891 (CANM 197809).
= *Tortula mucronifolia* Schwaegr.

Barbula subgracilis C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 53. 1892.
ISOTYPE. Canada: British Columbia, Yale, 17 May 1889 (CANM 197810).

Barbula subgracilis var. **viridior** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 263. 1892.
ISOTYPE. Canada: Ontario, Owen Sound, Sydenham River, 17 September 1890 (CANM 197811).

Barbula subicmadophila C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 53. 1892.
ISOTYPE. Canada: British Columbia, Yale, 17 May 1875 (CANM 197812).
= *Didymodon occidentalis* Zander

Barbula subulata var. **longifolia** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 89. 1890.
SYNTYPES. Canada: British Columbia, Yale, 17 May 1875 (CANM 197814); British Columbia, vicinity of Victoria, 7 May 1875 (CANM 197813).
= *Tortula subulata* Hedw.

Barbula tortellifolia C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 56. 1892.
SYNTYPE. Canada: British Columbia, Burrard Inlet, North Arm, 30 April 1889 (CANM 197815).
= *B. cylindrica* (Tayl. *ex* McKay) Schimp. *ex* Boul.

Bartramia circinnulata C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 105. 1892.
ISOTYPE. Canada: British Columbia, Hastings, 6 April 1889 (CANM 197817).
= *B. pomiformis* var. *elongata* Turn.

Bartramia glaucoviridis C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 105. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, 5 May 1890 (CANM 197818).
= *B. pomiformis* Hedw.

Bartramia oederiana var. **minor** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 105. 1892.
SYNTYPE. Canada: British Columbia, Gold Range, Mount Queest, alt. 6000 ft., *J.M. Macoun*, 27 July 1889 (CANM 197819).
= *Plagiopus oederiana* (Sw.) Limpr.

Bartramiopsis lescurii ssp. **sitkana** Kindb., Rev. Bryol. 21: 35. 1894.
ISOTYPE? United States: Alaska, Sitka, *J.M. Macoun*, September 1891 (CANM 197820).
= *B. lescurii* (James) Kindb.

Brachythecium cavernosum Kindb., Rev. Bryol. 22: 86. 1895.
SYNTYPES. Canada: Ontario, Credit Forks, *J. White*, 3 September 1892 (CANM 197827); Ontario, Spanish Mills, *J. White*, 5 September 1893 (CANM 197828).
= *B. rutabulum* (Hedw.) B.S.G.

Brachythecium columbico-rutabulum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 198. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, 13 May 1890 (CANM 197826).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium digastrum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 190. 1892.
SYNTYPE. Canada: Ontario, McKay's Bush, Ottawa, 12 October 1889 (CANM 197829).

Brachythecium gemmascens C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 195. 1892.
ISOTYPE. Canada: British Columbia, Columbia River above Revelstoke, 12 May 1890 (CANM 197830).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium harpidioides C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 194. 1892.
SYNTYPE. Canada: British Columbia, Revelstoke, 6 May 1890 (CANM 197831).

Brachythecium laevisetum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 279. 1890.
ISOTYPE. Canada: British Columbia, Craigallachie, 18 July 1889 (CANM 197832)
= *B. salebrosum* (Web. & Mohr) B.S.G.

Brachythecium lamprochryseum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 199. 1892.
SYNTYPES. Canada: British Columbia, Comox, 29 April 1887 (CANM 197833); British Columbia, Vancouver I., Mt. Finlayson, 19 May 1887 (CANM 197835); British Columbia, Vancouver I., Mt Benson, 8 June 1887 (CANM 197834).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium laxirete Kindb., Rev. Bryol. 36: 97. 1909.
ISOTYPE. Canada: British Columbia, Asulcan Valley, *A. Brinkman*, 10 July 1908 (CANM 197836).
= *B. rutabulum* (Hedw.) B.S.G.

Brachythecium leucoglaucum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 198. 1892.
SYNTYPE. Canada: New Brunswick, Queen's Co., *J. Moser*, 10 September 1888, CANADIAN MUSCI 591 (CANM 197837; 197838).
= *B. rutabulum* (Hedw.) B.S.G.

Brachythecium nanopes C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 201. 1892.
ISOTYPES. Canada: British Columbia, above Revelstoke, 19 May 1890, CANADIAN MUSCI 548 (CANM 197840); British Columbia, along the Columbia above Revelstoke, 19 May 1890 (CANM 197839).
= *B. populeum* (Hedw.) B.S.G.

Brachythecium platycladum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 195. 1892.
ISOTYPE. Canada: Ontario, Ottawa, 21 May 1885 (CANM 197841).
= *B. rutabulum* (Hedw.) B.S.G.

Brachythecium pseudo-albicans Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 278. 1890.
ISOTYPES. Canada: British Columbia, Comox, CANADIAN MUSCI 285 (as *Hypnum (Brachythecium) albicans* Neck.) (CANM 197843; 197844); British Columbia, Comox, 5 May 1887 (CANM 197842).
= *B. albicans* (Hedw.) B.S.G.

Brachythecium pseudo-chloropterum Kindb., Rev. Bryol. 32: 34. 1905.
ISOTYPE. Canada: Alberta, Pipestone Creek, 8 July 1904 (CANM 197845; 197846).
= *B. reflexum* (Starke *ex* Web. & Mohr) B.S.G.

Brachythecium pseudo-collinum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 196. 1892.
ISOTYPE. Canada: New Brunswick, Queen's Co., Canaan Forks, *J. Moser*, 1890 (CANM 197847).
= *B. salebrosum* (Web. & Mohr) B.S.G.

Brachythecium rivulare ssp. **colpophylloides** Kindb., Rev. Bryol. 34: 88. 1907.
SYNTYPES? Canada: British Columbia, Yoho Valley, Twin Falls, 6 August 1904 (CANM 197849); British Columbia, Yoho Valley, 6 September 1904 (CANM 197850); Québec, W of Old Chelsea, 17 May 1907 (CANM 197848).
= pp. *B. rutabulum* (Hedw.) B.S.G. (Québec) & pp. *B. nelsonii* Grout? (British Columbia)

Brachythecium rivulare ssp. **novae-brunsviciae** Kindb., Ottawa Nat. 4: 63. 1890.
ISOTYPE? Canada: New Brunswick, Canaan Forks, *J. Moser*, 1888 (CANM 197853).
= *B. rivulare* var. *obtusulum* Kindb. *in* Mac. & Kindb.

Brachythecium rivulare var **obtusulum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 201. 1892.
SYNTYPES. Canada: British Columbia, Revelstoke, CANADIAN MUSCI 492 (as *Hypnum (Brachythecium) rivulare* var. *new-brunswickae* Kindb.) (CANM 197852); New Brunswick, Fredericton, *J. Fowler*, 30 September 1879 (CANM 197854).

Brachythecium rutabuliforme Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 198. 1892.
ISOTYPE. Canada: British Columbia, Spence's Bridge, 30 May 1889 (CANM 197855).
= *B. plumosum* (Hedw.) B.S.G.

Brachythecium salebrosum ssp. **mamilligerum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 192. 1892.
ISOTYPE. Canada: British Columbia, Sicamous, 19 July 1889 (CANM 197856).
= *B. acutum* (Mitt.) Sull.

Brachythecium spurio-acuminatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 191. 1892.
SYNTYPES. Canada: Ontario, Northumberland Co., Brighton, 6 October 1888, CANADIAN MUSCI 566 (as *Brachythecium spurio-acuminata* C. Müll. & Kindb.) (CANM 197857); Ontario, Brighton, 6 October 1888 (CANM 197858).
= *B. oxycladon* (Brid.) Jaeg. & Sauerb.

Brachythecium spurio-rutabulum C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 197. 1892.
SYNTYPE. Canada: British Columbia, Burrard Inlet and Vancouver I., CANADIAN MUSCI 651 (CANM 197859; 197860).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium subintricatum Kindb., Rev. Bryol. 22: 86. 1895.
ISOTYPE. Canada: British Columbia, Victoria, Sea's Farm, 5 May 1893 (CANM 197862).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium velutinum ssp. **curvirameum** Kindb., Rev., Bryol. 34: 88. 1907.
ISOTYPES? Canada: Québec, E of Montmorency R., 30 July 1905 (CANM 197864); Québec, W side of Montmorency R., 24 June 1905 (CANM 197865; 197866).
= pp. *B. reflexum* (Starke *ex* Web. & Mohr) B.S.G. & pp. *B. starkei* (Brid.) B.S.G.

Bryum aciculimum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 355. 1897.
ISOTYPE. Canada: British Columbia, on Sproat Mt., 24 June 1890 (CANM 197867).
= *B. pseudotriquetrum* var. *crassirameum* (Ren. & Card.) Lawt.

Bryum alpiniforme Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 271. 1892.
ISOTYPE. Canada: Ontario, Lake Nipigon, 14 July 1884 (CANM 197868).

Bryum anoectangiaceum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 130. 1892.
ISOTYPE. Canada: British Columbia, Hector, 12 August 1890 (CANM 197871).
= *B. pallens* (Brid.) Sw. *ex* Röhl

Bryum aurimontanum Kindb., Rev. Bryol. 32: 34. 1905.
ISOTYPE? Canada: Yukon, Hunker Creek, 29 July 1902 (CANM 197872).
= *B. arcticum* (R. Br.) B.S.G.

Bryum bimum var. **angustifolium** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 123. 1892.
ISOTYPE. Canada: Ontario, Kingston, *J. Fowler*, 1 June 1881, CANADIAN MUSCI 641 (CANM 197873).
= *B. lisae* var. *cuspidatum* (B.S.G.) Marg.

Bryum brachyneuron Kindb. *in* Mac., Ottawa Nat. 5: 179. 1892.
ISOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 30 July 1891 (CANM 197876).

Bryum capillare ssp. **erythroloma** Kindb., Eur. N. Amer. Bryin. 2: 358. 1897.
LECTOTYPE. Canada: British Columbia, Vancouver I., Cedar Hill, 18 April 1887 (CANM 197874).
= *B. erythroloma* (Kindb.) Syed

Bryum capillare ssp. **heteroneuron** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 130. 1892.
SYNTYPES? Canada: British Columbia, Hastings, 11 April 1889 (CANM 197901; 197904); British Columbia, Nanaimo, 9 July 1889 (CANM 197902); Ontario, Ottawa, 24 May 1888 (CANM 197903).
= *B. capillare* Hedw.

Bryum capillare ssp. **ruraliforme** Kindb., Sp. Eur. & N. Amer. Bryin. 2: 358. 1897.
ISOTYPE. Canada: British Columbia, Pier's Farm, Victoria, 11 May 1893 (CANM 197878).

Bryum capillare var. **brevicuspidatum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 131. 1892.
SYNTYPE. Canada: British Columbia, near Victoria, CANADIAN MUSCI 180 (CANM 197875).

Bryum capitellatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 127. 1892.
ISOTYPE. Canada: British Columbia, Comox, 30 April 1887 (CANM 197879).
= *B. gemmiparum* De Not.

Bryum cirrhatum var. **megalosporum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 122. 1892.
ISOTYPE? Canada: British Columbia, Hastings, 29 April 1889 (CANM 197880).

Bryum columbico-caespiticium Kindb., Hedwigia 42 (Beibl.): 16. 1903.
ISOTYPE. Canada: British Columbia, Revelstoke, 8 May 1890 (CANM 197881).
= *B. lonchocaulon* C. Müll.

Bryum cucullatiforme Kindb., Sp. Eur. & N. Amer. Bryin. 2: 387. 1897.
ISOTYPE? United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 1 August 1892 (CANM 197882).
= *Pohlia obtusifolia* (Brid.) L. Koch

Bryum cyclophylloides Kindb., Rev. Bryol. 32: 37. 1905.
ISOTYPE. Canada: Alberta, Pipestone Creek, 6 July 1904 (CANM 197883).
= *B. turbinatum* (Hedw.) Turn.

Bryum duvalii var. **lato-decurrens** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 132. 1892.
SYNTYPES? Canada: British Columbia, Revelstoke, 12 May 1890, CANADIAN MUSCI 487 (as *Bryum lato-decurrens* C. Müll. & Kindb.) (CANM 197886); British Columbia, Roger's Pass, 30 July 1890 (CANM 197885); British Columbia, Revelstoke, 12 May 1890 (CANM 197910).
= *B. weigelii* Spreng.

Bryum edwardsianum C. Müll & Kindb., *in* Mac. & Kindb., Cat. Canad. Pl. 6: 120. 1892.
ISOTYPE. Canada: Prince Edward Island, Brackley Point, 7 July 1888 (CANM 197887).
= *B. stenotrichum* C. Müll.

Bryum erubescens Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 118. 1892.
ISOTYPE. Canada: Alberta, Rocky Mts., Laggan, 18 August 1891, CANADIAN MUSCI 638 (CANM 267883).
= *B. stenotrichum* var. *biddlecomiae* (Aust.) Lawt.

Bryum erythrophylloides Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 272. 1892.
ISOTYPE. Canada: Alberta, Cypress Hills, 6 August 1880 (CANM 197888).
= *B. turbinatum* (Hedw.) Turn.

Bryum erythrophylloides ssp. gaspeanum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 352. 1897.
ISOTYPE? Canada: Québec, Ste. Anne des Monts, Gaspé, 16 August 1882 (CANM 197884).

Bryum erythrophyllum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 131. 1892.
SYNTYPE. Canada: Nova Scotia, Truro, 12 June 1883 (CANM 197890).
= *B. turbinatum* (Hedw.) Turn.

Bryum flagellosum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 356. 1897.
ISOTYPE. Canada: British Columbia, Rocky Mts., Hector, 12 August 1890 (CANM 197891).
= *B. lisae* var. *cuspidatum* (B.S.G.) Marg.

Bryum froudei Kindb., Ottawa Nat. 5: 180. 1892.
ISOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 30 July 1891 (CANM 197892).
= *B. stenotrichum* C. Müll.

Bryum gemmascens Kindb., Sp. Eur. & N. Amer. Bryin. 2: 360. 1897.
ISOTYPE. Canada: British Columbia, Comox, 22 June 1893 (CANM 197893; 197894).
= *B. capillare* Hedw.

Bryum gemmuligerum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 368. 1897.
ISOTYPE. Canada: Saskatchewan, 12-mile Lake, near Wood Mountain, 6 June 1895 (CANM 267884).

Bryum grandirete Kindb., Sp. Eur. & N. Amer. Bryin. 2: 353. 1897.
ISOTYPE? Canada: British Columbia, Selkirk Mts., Roger's Pass, 7 August 1895 (CANM 197895).
= *B. turbinatum* (Hedw.) Turn.

Bryum haematocarpum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 125. 1892.
ISOTYPES. Canada: British Colum[illegible], Valley Pass Creek, at Sproat, Columbia R., 19 June 1890, CANADIAN MUSCI 555 (CANM 197897); British Columbia, Pass Creek, Sproat, 19 June 1890 (CANM 197896).
= *B. pseudotriquetrum* (Hedw.) Gaertn., Meyer & Scherb.

Bryum hamicuspis Kindb., Hedwigia 42 (Beibl.): 16. 1903.
SYNTYPE. Canada: Ontario, Cape Vincent, near Kingston, *J. Fowler*, 1 June 1881 (CANM 197899; 197900).
= *B. lisae var. cuspidatum* (B.S.G.) Marg.

Bryum hydrophilum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 95. 1889.
ISOTYPES. Canada: British Columbia, near Nanaimo, CANADIAN MUSCI 187 (as *Bryum hydrophylum* Kindb.) (CANM 197908); British Columbia, Nanaimo, 4 June 1887 (CANM 197907).
= *B. pallens* Sw.

Bryum intermedium ssp. ovatifolium Kindb., Rev. Bryol. 34: 92. 1907.
ISOTYPE. Canada: Alberta, Pipestone Creek, 6 July 1904 (CANM 267885).

Bryum julaceum Kindb., Ottawa Nat. 23: 187. 1910.
ISOTYPE. Canada: Alberta, Pipestone Pass, 4 July 1904 (CANM 197909).
= *B. caespiticium* Hedw.

Bryum leucolomatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 123. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, 17 May 1890, CANADIAN MUSCI 543 (CANM 197911); British Columbia, Revelstoke, 17 May 1890 (CANM 143229).
= *B. lonchocaulon* C. Müll.

Bryum manitobae Kindb., Rev. Bryol. 37: 15. 1910.
ISOTYPE. Canada: Manitoba, MacGregor, 9 June 1906 (CANM 197912).
= *B. lisae* var. *cuspidatum* (B.S.G.) Marg.

Bryum microcephalum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 134. 1892.
ISOTYPE. Canada: British Columbia, Deer Park, Lower Arrow Lake, Columbia River, 11 June 1890 (CANM 197913).
= *B. caespiticium* Hedw.

Bryum microerythrocarpum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 124. 1892.
ISOTYPE. Canada: British Columbia, Vancouver I., Shawnigan Lake, 1 July 1887 (CANM 197914).

Bryum microglobum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 129. 1892.
ISOTYPE. Canada: Ontario, near London, *J. Dearness*, 15 May 1889 (CANM 197915).
= *B. bicolor* Dicks.

Bryum oligochloron C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 129. 1892.
ISOTYPES. Canada: British Columbia, Deer Park, Lower Arrow Lake, Columbia River, 12 June 1890, CANADIAN MUSCI 554 (as *Bryum oligocladon* C. Müll. & Kindb.) (CANM 197917); British Columbia, Deer Park, Lower Arrow Lake, 12 June 1890 (CANM 197918).
= *B. caespiticium* Hedw.

Bryum ontariense Kindb., Ottawa Nat. 2: 155. 1889 and Bull. Torrey Bot. Cl. 16: 96. 1889.
ISOLECTOTYPE. Canada: Ontario, CANADIAN MUSCI 184 (as *Bryum roseum* Schreb.) (CANM 145198).
= *Rhodobryum ontariense* (Kindb.) Kindb.

Bryum pallescens var. grande Kindb., Rev. Bryol. 36: 43. 1909.
ISOTYPE? Canada: British Columbia, Departure Bay, 7 July 1908 (CANM 197923).

Bryum pallescens var. laxifolium Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 274. 1890.
ISOTYPE. Canada: Alberta, Kananaskis Pass, 23 June 1885 (CANM 197924; 197925).
= *B. borsale* (Web. & Mohr) Funck

Bryum pallescens var. longifolium Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 274. 1890.
ISOTYPE. Canada: Alberta, Morley, foothills of Rocky Mts., 13 June 1885 (CANM 197926).

Bryum percurrentinerve Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 126. 1892.
ISOTYPES. Canada: British Columbia, W of Kamloops, 18 June 1890, CANADIAN MUSCI 505 (as *Bryum percumcentinerve* Kindb.) (CANM 197928); British Columbia, Kamloops, 18 June 1889 (CANM 197930).
= *B. gemmiparum* De Not.

Bryum producticolle Kindb., Sp. Eur. & N. Amer. Bryin. 2: 364. 1897.
ISOTYPE. Canada: British Columbia, near Victoria, 25 May 1893 (CANM 197932).
= *B. lonchocaulon* C. Müll.

Bryum pseudo-carneum Kindb., Ottawa Nat. 14: 88. 1900.
ISOTYPE. Canada: Nova Scotia, Sable I., 16 August 1899 (CANM 197933).
= *Pohlia bulbifera* (Warnst.) Warnst.

Bryum pseudotriquetrum var. hyalodontium C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 133. 1892.
ISOTYPE. Canada: British Columbia, Rocky Mts., Hector, 13 August 1890 (CANM 197934).

Bryum pygmaeo-alpinum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 126. 1892.
ISOTYPE. Canada: British Columbia, Mount Arrowsmith, 17 July 1887 (CANM 197935).
= *B. muehlenbeckii* B.S.G.

Bryum revelstokense Kindb., Rev. Bryol. 23: 22. 1896.
ISOTYPE? Canada: British Columbia, Revelstoke, 9 May 1890 (CANM 143231; 197936; 197937).
= *B. lonchocaulon* C. Müll.

Bryum rubicundulum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 129. 1892.
ISOTYPES. Canada: British Columbia, Selkirk Mts., Asulcan Glacier, 7 August 1890, CANADIAN MUSCI 519 (as *Bryum rubicundum* C. Müll. & Kindb.) (CANM 197938); British Columbia, Hermit Mt., Roger's Pass, 5 August 1890 (CANM 197939).
= *B. muehlenbeckii* B.S.G.

Bryum streptophyllum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 359. 1897.
ISOTYPE. Canada: British Columbia, Hastings, 6 April 1889 (CANM 197940).
= *B. capillare* Hedw.

Bryum subpercurrentinerve Kindb., Rev. Bryol. 32: 37. 1905.
ISOTYPE? Canada: Alberta, along Pipestone Creek, 8 July 1904 (CANM 197942).
= *B. pseudotriquetrum* var. *bimum* (Brid.) Lilj.

Bryum subpolymorphum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 390. 1897.
ISOTYPE. Canada: British Columbia, Gold Range, N of Griffin Lake, alt. 6500 ft., 1889, CANADIAN MUSCI 468 (as *Webera cucullata* Schimp.) (CANM 197943).
= *Pohlia drummondii* (C. Mill.) Andr.

Bryum subpurpurascens Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 119. 1892.
ISOTYPE. Canada: British Columbia, Port Moody, Burrard Inlet, 23 April 1889, CANADIAN MUSCI 593 (CANM 197944).
= *B. pallens* Sw.

Bryum synoico-caespiticium C. Mill. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 128. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, channels of the Illicillewaet, 27 May 1890, CANADIAN MUSCI 513 (CANM 197945); British Columbia, Revelstoke, 27 May 1890 (CANM 197946).
= *B. caespiticium* Hedw.

Bryum tomentosum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 361. 1897.
ISOTYPE. Canada: British Columbia, Rocky Mts., Hector, 14 August 1890 (CANM 197947).
= *B. capillare* Hedw.

Bryum trichophorum Kindb., Sp. Eur. & N. Amer. Bryin. 2: 359. 1897.
ISOTYPES. Canada: British Columbia, Vancouver I., Cadboro Bay, 31 May 1893, CANADIAN MUSCI 623 (as *Mielichhoferia trichophora* Kindb.) (CANM 197949); British Columbia, Vancouver I., Cadboro Bay, 31 May 1893 (CANM 197948).
= *B. capillare* Hedw.

Bryum vancouveriense Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 95. 1889.
ISOTYPE? Canada: British Columbia, Goldstream, near Victoria, 18 May 1887 (CANM 197951).
= *B. caespiticium* Hedw.

Calliergon subgiganteum Kindb., Ottawa Nat. 14. 80. 1900.
ISOTYPE. Canada: Saskatchewan, Prince Albert, 30 June 1896 (CANM 267886).
= *C. richardsonii* (Mitt.) Kindb. *in* Warnst.

Calliergon subsarmentosum Kindb., Rev. Bryol. 36: 42. 1909 and Ottawa Nat. 23: 137. 1909.
ISOTYPE. Canada: British Columbia, Shawnigan Lake, 18 June 1908 (CANM 197952).
= *C. sarmentosum* (Wahlenb.) Kindb.

Calliergon subturgescens Kindb., Rev. Bryol. 32: 34. 1905.
ISOTYPE. Canada: Alberta, Laggan, 25 July 1904 (CANM 197953).
= *Scorpidium turgescens* (T. Jens.) Loeske

Camptothecium hamatidens var. **tenue** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 277. 1890.
ISOTYPES? Canada: British Columbia, Vancouver I., CANADIAN MUSCI 392 (as *Hypnum (Camptothecium) hamatidens* Kindb.) (CANM 197956); British Columbia, Vancouver I., Mt. Erskine, 10 May 1887 (CANM 197954).
= *Homalothecium nuttallii* (Wils.) Jaeg.

Camptothecium nitens var. **leucobasis** Kindb., Ottawa Nat. 23: 138. 1909.
ISOTYPE? Canada: Yukon, Hunker Creek, 30 July 1902 (CANM 197957).
= *Tomenthypnum nitens* (Hedw.) Loeske

Camptothecium nitens var. **microtheca** Kindb., Ottawa Nat. 23: 138. 1909.
ISOTYPES? Canada: Yukon, Hunker Creek, 17 mi. from Dawson, 26 July 1902 (CANM 197958); Yukon, Hunker Creek, 25 July 1902 (CANM 197959).
= *Tomenthypnum nitens* (Hedw.) Loeske

Campylopus canadensis Kindb., Rev. Bryol. 32: 35. 1905.
ISOTYPE? Canada: Alberta, head of Lake Louise, 13 September 1904 (CANM 197961; 197962).
= *Paraleucobryum longifolium* (Hedw.) Loeske

Ceratodon columbiae Kindb., Rev. Bryol. 23: 20. 1896.
SYNTYPE? Canada: British Columbia, Revelstoke, 3 May 1890 (CANM 197963).
= *C. purpureus* (Hedw.) Brid.

Ceratodon heterophyllus Kindb., Ottawa Nat. 5: 179. 1892.
ISOLECTOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 16 August 1891 (CANM 197965).
= *C. purpureus* var. *rotundifolius* Berrgr.

Cinclidium macounii Kindb., Rev. Bryol. 23: 21. 1896.
SYNTYPE. Canada: British Columbia, Rocky Mts., Kicking Horse Lake, 23 July 1885 (CANM 197966).
= *C. stygium* Sw.

Cynodontium strumulosum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 16. 1892.
ISOTYPES. Canada: British Columbia, Rocky Mts., Hector Station, 13 August 1890, CANADIAN MUSCI 518 (CANM 197967); British Columbia, Hector, 13 August 1890 (CANM 197968).
= *Oncophorus strumulosus* (C. Müll. & Kindb.) Britt. *in* Williams

Desmatodon camptothecius Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 48. 1892.
ISOTYPE? Canada: Québec, Gaspé Coast, August 1882 (CANM 197969).
= *D. cernuus* (Hüb.) B.S.G.

Desmatodon cernuus var. **xanthopus** Kindb., Ottawa Nat. 4: 61. 1891.
ISOTYPES. Canada: Manitoba, Boggy Creek, 12 August 1872, CANADIAN MUSCI 604 (CANM 267887); Manitoba, Boggy Creek, 12 August 1872 (CANM 131557).
= *D. cernuus* (Hüb.) B.S.G.

Desmatodon subtorquescens C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 48. 1892.
ISOTYPE. Canada: Québec, Gaspé, 10 August 1882 (CANM 197970).
= *D. obtusifolius* (Schwaegr.) Schimp.

Dichelyma longinerve Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 97. 1889.
ISOTYPE. Canada: British Columbia, Vancouver I., Cedar Hill, 1887, CANADIAN MUSCI 391 (CANM 197971).
= *Drepanocladus exannulatus* (B.S.G.) Warnst.

Dichelyma obtusulum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 159. 1892.
ISOTYPE. Canada: New Brunswick, Bass R., *J. Fowler*, 13 July 1878, CANADIAN MUSCI 534 (CANM 197972).
= *D. pallescens* B.S.G.

Dicranella cerviculatula Kindb., Ottawa Nat. 5: 195. 1892.
ISOTYPE. Canada: Northwest Territories, Nottingham I., Hudson Strait, *R. Bell*, 24 August 1884 (CANM 197973).
= *Arctoa hyperborea* (With.) B.S.G.

Dicranella parvula Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 91. 1889.
SYNTYPE. Canada: British Columbia, Rocky Mts., Kicking Horse Lake, 28 July 1885 (CANM 197974).
= *Didymodon parvulus* (Kindb.) Britt. *in* Williams

Dicranella polaris Kindb., Ottawa Nat. 5: 195. 1892.
ISOTYPE. United States: Alaska, St. Lawrence I., Behring Sea, *J.M. Macoun*, 15 August 1891 (CANM 197975).
= *D. cerviculata* (Hedw.) Schimp.

Dicranoweisia obliqua Kindb., Ottawa Nat. 5: 195. 1892.
ISOTYPES. Canada: British Columbia, Selkirk Mts., Asulcan Creek, 8 August 1890, CANADIAN MUSCI 668 (CANM 197976); British Columbia, Selkirk Mts., Asulcan Creek near the glacier, 7 August 1890 (CANM 197977).
= *Kiaeria blyttii* (B.S.G.) Broth.

Dicranoweisia roellii var. **sterrima** Kindb., Ottawa Nat. 23: 142. 1909.
ISOTYPE. Canada: British Columbia, Lake O'Hara, 9 August 1904 (CANM 197978).
= *D. crispula* var. *contermina* (Ren. & Card.) Grout

Dicranum albicans var. **denticulatum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 261. 1892.
SYNTYPES. Canada: British Columbia, Rocky Mts., near Hector, 7 August 1890, CANADIAN MUSCI 589 (CANM 197979); British Columbia, Rocky Mts., 3 mi. below Hector, 13 August 1890 (CANM 197980).
= *Paraleucobryum longifolium* (Hedw.) Loeske

Dicranum crispulum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 27. 1892.
SYNTYPES. Canada: British Columbia, Selkirk Mts., Albert Canyon, 29 May 1890, CANADIAN MUSCI 569 (CANM 197994); British Columbia, Albert Canyon, 29 May 1890 (CANM 197995); British Columbia, Vancouver I., Comox, 2 May 1887 (CANM 198026).
= *D. fuscescens* Turn.

Dicranum sauteri var. **pachytrichum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 260. 1892.
ISOTYPE. Canada: British Columbia, Selkirk Mts., Roger's Pass, 29 July 1890 (CANM 198004).
= *Paraleucobryum longifolium* (Hedw.) Loeske

Dicranum sulcatum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 87. 1890.
SYNTYPE. Canada: British Columbia, Vancouver I., July 1887 (CANM 198025).
= *D. fuscescens* Turn.

Didymodon baden-powellii Kindb., Ottawa Nat. 5: 179. 1892.
ISOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 4 August 1891 (CANM 198029).
= *Bryoerythrophyllum recurvirostrum* (Hedw.) Chen

Didymodon canadensis Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 44. 1892.
ISOTYPE. Canada: Alberta, Rocky Mts., head of Lake Louise, 8 August 1891 (CANM 198030).
= *Bryoerythrophyllum recurvirostrum* (Hedw.) Chen

Didymodon trachyneuron Kindb., Sp. Eur. & N. Amer. Bryin. 2: 275. 1897.
ISOTYPE. Canada: Québec, Wakefield, 13 September 1893 (CANM 198031).
= *Oxystegus tenuirostris* (Hook. & Tayl.) A.J.E. Smith

Distichium macounii C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 40. 1892.
SYNTYPES. Canada: British Columbia, along the Columbia R. above Revelstoke, 18 May 1890, CANADIAN MUSCI 490 (CANM 198032); British Columbia, along the Columbia above Revelstoke, 18 May 1890 (CANM 198033).
= *Ditrichum flexicaule* var. *densum* (B.S.G.) Braithw.

Drummondia clavellata var. **canadensis** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 81. 1892.
ISOTYPE. Canada: Ontario, Pelee I., 15 June 1882 (CANM 199515).
= *D. prorepens* (Hedw.) Britt.

Encalypta alaskana Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 269. 1892.
ISOTYPE. United States: Alaska, Ounalaska I., Behring Sea, *J.M. Macoun*, 21 August 1891 (CANM 198034).
= *E. ciliata* Hedw.

Encalypta cucullata C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 96. 1892.
ISOTYPE. Canada: British Columbia, along the Columbia R. at Revelstoke, 9 May 1890, CANADIAN MUSCI 491 (CANM 198036).
= *E. procera* Bruch

Encalypta labradorica Kindb., Sp. Eur. & N. Amer. Bryin. 2: 295. 1897.
ISOTYPE. Canada: Québec, Fort Chimo, *A.P. Low*, 30 August 1896 (CANM 198035).
= *E. brevicolla* (B.S.G.) Bruch *ex* Aongstr.

Encalypta leiocarpa Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 273. 1890.
ISOTYPE? Canada: British Columbia, Mt. Queest, *J.M. Macoun*, 27 July 1889 (CANM 124021).
= *E. affinis* Hedw. f.

Encalypta macounii Aust., Bot. Gaz. 2: 97. 1877.
ISOTYPE. Canada: British Columbia, Stewart's Lake Mts., 21 June 1875 (CANM 198038).
= *E. affinis* Hedw. f.

Encalypta rhaptocarpa var. **leiomitra** Kindb., Ottawa Nat. 4: 61. 1890.
ISOTYPE. Canada: Alberta, Clearwater River, Athabasca, lat. 57°, *J.M. Macoun*, 11 July 1888 (CANM 198037).
= *E. rhaptocarpa* Schwaegr.

Encalypta sub-brevicolla Kindb., Sp. Eur. & N. Amer. Bryin. 2: 295. 1897.
ISOTYPE. Canada: Labrador, Seal Lake, *A.P. Low*, 3 August 1896 (CANM 198039).
= *E. brevicolla* (B.S.G) Bruch *ex* Aongstr.

Encalypta subapathulata C. Mull. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 93. 1892.
SYNTYPES. Canada: British Columbia, Lytton, April 1889, CANADIAN MUSCI 421 (as *E. spathulata* C. Müll.) (CANM 198042); British Columbia, near Macleod's Lake, 25 June 1875 (CANM 198040).
= *E. rhaptocarpa* var. *subapathulata* (C. Müll. & Kindb. *in* Mac. & Kindb.) Flow.

Entodon acicularis C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 176. 1892.
SYNTYPE. Canada: Ontario, McKay's Woods, 2 May 1885 (CANM 198044).
= *E. cladorrhizans* (Hedw.) C. Müll.

Entodon expallens C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 177. 1892.
ISOTYPE. Canada: British Columbia, Stephen, summit of Rocky Mts., 23 July 1885 (CANM 198043).
= *Hypnum pratense* Koch *ex* Brid.

Entodon macounii C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 177. 1892.
ISOTYPES. Canada: Ontario, Northumberland Co., Murray, CANADIAN MUSCI 436 (as *Cylindrothecium drummondii* Bruch & Schimp.) (CANM 198046); Ontario, Murray, 7 October 1888 (CANM 198045).
= *Hypnum pratense* Koch *ex* Brid.

Eurhynchium labradoricum Kindb., Sp. Eur. & N. Amer. Bryin. 1: 101. 1896.
ISOTYPES. Canada: Québec, Fort Chimo, *A.P. Low*, 9 September 1896 (CANM 197861); Québec, Ungava Bay, *A.P. Low*, 9 September 1896 (CANM 198048).
= *Brachythecium calcareum* Kindb.

Eurhynchium pseudo-serrulatum Kindb., Ottawa Nat. 7: 22. 1893.
SYNTYPES. Canada: Newfoundland, Harbor Deep, *A.C. Waghorne*, 1 October 1891 (CANM 198053); Newfoundland, Seal Cove, *A.C. Waghorne*, 1891 (CANM 198052); Newfoundland, Western Cove, *A.C. Waghorne*, 12 October 1891 (CANM 198051); Ontario, Ottawa, 12 October 1889 (CANM 198054).
= pp. *Brachythecium curtum* (Lindb.) Limpr. & pp. *Brachythecium rutabulum* (Hedw) B.S.G.

Eurhynchium pseudo-velutinoides Kindb., Rev. Bryol. 22: 84. 1895.
ISOTYPE. Canada: British Columbia, Victoria, Sea's Farm, 18 May 1893 (CANM 198055).
= *Brachythecium pseudovelutinoides* (Kindb.) Broth.

Eurhynchium revelstokense Kindb., Ottawa Nat. 7: 22. 1893.
ISOTYPE? Canada: British Columbia, Revelstoke, 5 May 1890 (CANM 198056).
= *Brachythecium acutum* (Mitt.) Sull.

Eurhynchium rusciforme var. **obtusum** Kindb., Rev. Bryol. 36: 43. 1909.
ISOTYPE. Canada: British Columbia, Departure Bay, Biological Station, 3 July 1908 (CANM 198057).

Eurhynchium semiasperum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 207. 1892.
ISOTYPES. Canada: British Columbia, Deer Park, Lower Arrow Lake, Columbia R., 6 June 1890, CANADIAN MUSCI 507 (as *Hypnum (Eurhynchium) semiasperum* C. Müll. & Kindb.) (CANM 198058); British Columbia, Deer Park, Lower Arrow Lake, 6 June 1890 (CANM 198059).
= *Brachythecium plumosum* (Hedw.) B.S.G.

Eurhynchium serrulatum ssp. **ericense** Kindb., Ottawa Nat. 7: 22. 1893.
ISOTYPE. Canada: Ontario, Leamington, 21 September 1890 (CANM 198060).
= *Rhynchostegium serrulatum* (Hedw.) Jaeg. & Sauerb.

Eurhynchium subcaespitosum Kindb., Rev. Bryol. 22: 84. 1895.
ISOTYPE. Canada: British Columbia, Vancouver I., Goldstream, 2 June 1893 (CANM 198062).
= *Scleropodium subcaespitosum* (Kindb.) Par.

Eurhynchium subintegrifolium Kindb., Ottawa Nat. 7: 21. 1893.
ISOTYPE. Canada: British Columbia, Revelstoke, 5 May 1890 (CANM 198064).
= *Brachythecium curtum* (Lindb.) Limpr.

Eurhynchium subtrigosum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 205. 1892.
ISOTYPES. Canada: British Columbia, Sicamous, 3 July 1889 (CANM 198066); British Columbia, Sicamous, Lake Mara, 3 July 1889 (CANM 198067; 198068).
= *E. pulchellum* (Hedw.) Jenn.

Fissidens adiantoides var. **brachyphyllus** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 37. 1892.
ISOTYPE. Canada: Ontario, Belleville, 13 October 1888 (CANM 198069).
= *F. cristatus* Wils. *ex* Mitt.

Fissidens osmundoides var. **obliquus** Kindb., Rev. Bryol. 36: 42. 1909 and Ottawa Nat. 23: 140. 1909.
SYNTYPES. Canada: British Columbia, Sicamous, 3 July 1889 (CANM 198074); Ontario, above Britannia, 11 October 1907 (CANM 198072); Ontario, Algonquin Park, Island Lake, 17 July 1900 (CANM 198073).
= pp. *F. osmundoides* Hedw. & pp. *F. limbatus* Sull.

Fontinalis dalecarlica var. **macounii** Card. *ex* Ren. & Card., Rev. Bryol. 20: 9. 1893.
LECTOTYPE. Canada: Alberta, Athabasca Plains, 24 September 1872 (CANM 197175).

Forsstroemia nitida Lindb., Oefv. Finsk.-Vet. Soc. Foerh. 12(2): 73. 1869.
ISOTYPE. Canada: Ontario, Hastings Co., 20 July 1864 (CANM 159489).
= *Neomacounia nitida* (Lindb.) Irel.

Georgia cuspidata Kindb., Rev. Bryol. 20: 93. 1893.
SYNTYPE. Canada: Ontario, Leamington, 20 September 1890 (CANM 198075).
= *Tetraphis pellucida* Hedw.

Grimmia arctophila ssp. **labradorica** Kindb., Sp. Eur. & N. Amer. Bryin. 2: 221. 1897.
ISOTYPE? Canada: Québec, Clearwater Lake, *A.P. Low*, 21 July 1896 (CANM 198076).
= *G. affinis* Hoppe & Hornsch. *ex* Hornsch.

Grimmia arcuatifolia Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 93. 1889.
ISOTYPE. Canada: British Columbia, near Victoria, Mount Tolmie, 21 April 1887 (CANM 198077).
= *Rhacomitrium heterostichum* (Hedw.) Brid.

Grimmia atricha C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 65. 1892.
ISOTYPE. Canada: British Columbia, Sproat Mt., Columbia R., 24 June 1890, CANADIAN MUSCI 609 (CANM 198078).

Grimmia canadensis Kindb., Sp. Eur. & N. Amer. Bryin. 2: 226. 1897.
ISOTYPES? Canada: British Columbia, Vancouver I., Victoria, Parson's Mt., 13 May 1893, CANADIAN MUSCI 652 (CANM 198079); British Columbia, Victoria, Esquimault Harbour, 13 May 1893 (CANM 198080).
= *G. trichophylla* Grev.

Grimmia chloroblasta Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 64. 1892.
ISOTYPE. Canada: British Columbia, mountain at Spence's Bridge, 28 May 1890, CANADIAN MUSCI 607 (CANM 198081).
= *G. heterophylla* Kindb. *in* Mac. & Kindb.

Grimmia depilata Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 69. 1892.
ISOTYPE. Canada: British Columbia, Vancouver I., Mount Benson, 8 June 1887 (CANM 198083).
= *G. trichophylla* Grev.

Grimmia elata Kindb., Rev. Bryol. 32: 33. 1905.
ISOTYPE? Canada: Yukon, Hunker Creek, 25 July 1902 (CANM 198084).
= *G. elatior* Bruch *ex* Bals. & De Not.

Grimmia grandis Kindb., Rev. Bryol. 32: 36. 1905.
ISOTYPE. Canada: Alberta, Lake Louise, 13 September 1904 (CANM 267888).

Grimmia heterophylla Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 64. 1892.
ISOTYPE. Canada: British Columbia, Spence's Bridge, 28 May 1889 (CANM 198086).

Grimmia microtricha C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 70. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, 7 May 1890 (CANM 198087).
= *G. donniana* Sm.

Grimmia nivalis Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 271. 1890.
ISOTYPES. Canada: British Columbia, summit of Gold Range, August 1889, CANADIAN MUSCI 415 (CANM 198089); British Columbia, Gold Range, 10 August 1889 (CANM 198088; 198090).
= *G. donniana* Sm.

Grimmia ovataeformis Kindb., Rev. Bryol. 32: 35. 1905.
ISOTYPES? Canada: Alberta, Lake Louise, 13 September 1904 (CANM 198091); Alberta, head of Lake Louise, 13 September 1904 (CANM 198092).

Grimmia papillinervis Kindb., Rev. Bryol. 34: 89. 1907.
ISOTYPE? Canada: British Columbia, summit of Skagit Trail, 18 July 1905 (CANM 198093).

Grimmia procera Kindb., Rev. Bryol. 23: 18. 1896.
ISOTYPE? Canada: British Columbia, Vancouver I., Parson's Mt., 19 May 1893 (CANM 198094; 198095).
= *G. leibergii* Par.

Grimmia pseudorivularis ssp. **lancifolia** Kindb., Sp. Eur. & N. Amer. Bryin. 2: 234. 1897.
SYNTYPES. Canada: British Columbia, Hector, 11 August 1890 (CANM 198096); Québec, Chelsea, Meech Lake, 30 September 1893 (CANM 198097).

Grimmia sarcocalyx Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 66. 1892.
ISOTYPE. Canada: British Columbia, Spence's Bridge, 28 May 1889 (CANM 198098).
= *G. laevigata* (Brid.) Brid.

Grimmia subflaccida Kindb., Ottawa Nat. 14: 85. 1900.
ISOTYPE? Canada: New Brunswick, Edmundston, 8 September 1899 (CANM 198099).
= *G. apocarpa* Hedw.

Grimmia subpapillinervis Kindb., Rev. Bryol. 36: 98. 1910.
ISOTYPE. Canada: British Columbia, Asulcan Valley, *A. Brinkman*, 10 July 1908 (CANM 198100).

Grimmia velutina Kindb., Rev. Bryol. 23: 18. 1896.
ISOTYPE. Canada: British Columbia, Lytton, on right bank of Thompson R., 17 April 1889 (CANM 198101).
= *G. donniana* var. *mamniae* (C. Müll.) Wijk & Marg.

Gymnostomum platyphyllum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 84. 1890.
ISOTYPE. Canada: British Columbia, W of Kamloops, 18 June 1889, CANADIAN MUSCI 506 (CANM 198102).
= *Didymodon tophaceus* (Brid.) Lisa

Heterocladium macounii Best, Bull. Torrey Bot. Cl. 28: 127. 1901.
ISOTYPES. Canada: British Columbia, Vancouver I., Goldstream, 2 June 1893, CANADIAN MUSCI 648 (as *H. vancouveriense* Kindb.) (CANM 198106); British Columbia, Goldstream, 2 June 1893 (CANM 198107).

Heterophyllon pseudo-nemerosum Kindb., Sp. Eur. & N. Amer. Bryin. 1: 123. 1896.
ISOTYPE? Canada: New Brunswick, Queen's Co., *J. Moser*, 1889 (CANM 198108).
= *Calliciadium haldanianum* (Grev.) Crum

Homalia macounii C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 163. 1892.
SYNTYPES? Canada: British Columbia, Revelstoke, 19 May 1890 (CANM 198110); British Columbia, along the Columbia above Revelstoke, 19 May 1890 (CANM 198113); British Columbia, Vancouver I., Comox, 30 April 1887 (CANM 198112); Newfoundland, *A.C. Waghorne*, 24 July 1890 (CANM 198109); Ontario, McKay's Lake, May 1885 (CANM 198111).
= *Homalia trichomanoides* (Hedw.) B.S.G.

Homalothecium sericeoides C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 175. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, 7 May 1890, CANADIAN MUSCI 496 (CANM 198116); British Columbia, Revelstoke, 7 May 1890 (CANM 198117).
= *Homalothecium nevadense* (Lesq.) Ren. & Card.

Hypnum alaskae Kindb., Ottawa Nat. 7: 23. 1893.
SYNTYPE? United States: Alaska, Port Etches, Lat. 60° 30' N, *J.M. Macoun*, 18 June 1892 (CANM 198118).
= *H. callichroum* Brid.

Hypnum arcuatiforme Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 238. 1892.
ISOTYPE. Canada: Ontario, Ottawa, in Beechwood, near gate of cemetery, 29 September 1889 (CANM 198119).
= *H. lindbergii* Mitt.

Hypnum chloropterum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 231. 1892.
SYNTYPES? Canada: New Brunswick, Canaan Forks, *J. Moser*, 1890 (CANM 198121); New Brunswick, Queen's Co., *J. Moser*, June 1889 (CANM 198122); New Brunswick, King's Co., *J. Moser*, 19 July 1891 (CANM 198123); Newfoundland, New Harbour, *A.C. Waghorne*, 12 August 1890 (CANM 198120).
= *Bryhnia novae-angliae* (Sull. & Lesq. *ex* Sull.) Grout

Hypnum columbico-palustre C. Mull. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 241. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, at mouth of the canyon, 18 May 1890, CANADIAN MUSCI 493 (CANM 198124); British Columbia, by Illicillewaet Canyon, 18 May 1890 (CANM 198125).
= *Hygrohypnum luridum* (Hedw.) Jenn.

Hypnum conflatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 230. 1892.
SYNTYPES? Canada: British Columbia, Spence's Bridge, alt. 3000 ft., 28 May 1889 (CANM 198126); Ontario, Brittania, 14 September 1890 (CANM 198127).
= *Drepanocladus aduncus* (Hedw.) Warnst.

Hypnum decursivalum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 224. 1892.
SYNTYPES. Canada: British Columbia, Selkirk Mts., E of Albert Canyon Station, 29 May 1890, CANADIAN MUSCI 514 (as *Hypnum (Campylium) decursivalum* C. Müll. & Kindb.) (CANM 199027); British Columbia, Albert Canyon, 29 May 1890 (CANM 199262).
= *Campylium radicale* (P. Beauv.) Grout

Hypnum falcatum var. **microphyllum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 232. 1892.
SYNTYPE. Canada: Newfoundland, Bay Bull's Arm, *A.C. Waghorne*, 20 August 1890 (CANM 198128).
= *Drepanocladus sendtneri* (Schimp.) Warnst.

Hypnum filicinum var. **aciculinum** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 231. 1892.
ISOTYPES. Canada: British Columbia, Revelstoke, 23 May 1890, CANADIAN MUSCI 587 (CANM 198129); British Columbia, W of Revelstoke, 23 May 1890 (CANM 198130).
= *Cratoneuron filicinum* var. *aciculinum* (C. Müll. & Kindb. *ex* Mac. & Kindb.) Grout

Hypnum flaccum C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 240. 1892.
SYNTYPES? Canada: New Brunswick, Canaan Forks, *J. Moser*, 1891 (CANM 198132); New Brunswick, Canaan Forks, *J. Moser*, 11 September 1888 (CANM 198133); New Brunswick, Queen's Co., Canaan Forks, *J. Moser*, 1888 (CANM 198131); Ontario, Owen Sound, base of Jones Falls, 17 September 1890 (CANM 198134).
= *Calliciadium haldanianum* (Grev.) Crum

Hypnum hamatidens Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 97. 1889.
ISOTYPE? Canada: British Columbia, Vancouver I., CANADIAN MUSCI 279 (as *H. (Campothecium) haematidens* Kindb.) (CANM 197955).
= *Homalothecium nuttallii* (Wils.) Jaeg.

Hypnum jamesii-macounii Kindb., Rev. Bryol. 43: 88. 1907.
ISOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 6 July 1892 (CANM 198136).
= *Drepanocladus jamesii-macounii* (Kindb.) Grout

Hypnum molluscoides Kindb., Rev. Bryol. 22: 85. 1895.
ISOTYPE? Canada: Newfoundland, Bay Bull's Arm, *A.C. Waghorne*, 11 November 1890 (CANM 198139).
= *H. mollusccum* var. *molluscoides* (Par.) Grout

Hypnum moseri Kindb., Ottawa Nat. 4: 65. 1890.
ISOTYPES? Canada: New Brunswick, Canaan Forks, *J. Moser*, 30 December 1889 (CANM 198140); New Brunswick, Queen's Co., *J. Moser*, 1889 (CANM 198141).
= *Drepanocladus uncinatus* (Hedw.) Warnst.

Hypnum pseudo-arcticum Kindb., Bull. Torrey Bot. Cl. 17: 280. 1890.
SYNTYPE? Canada: British Columbia, Sicamous, 3 July 1889 (CANM 198144).
= *Hygrohypnum luridum* (Hedw.) Jenn.

Hypnum pseudo-circinnale Kindb., Ottawa Nat. 14: 83. 1900.
SYNTYPE? Canada: New Brunswick, Woodstock, 3 July 1899 (CANM 198145).
= *H. fertile* Sendtn.

Hypnum pseudo-drepanium C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 240. 1892.
ISOTYPE. Canada: Ontario, Ottawa, Dow's Swamp, 16 September 1889 (CANM 198146).
= *H. lindbergii* Mitt.

Hypnum pseudo-fastigiatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 235. 1892.
SYNTYPES? Canada: British Columbia, Revelstoke, 6 May 1890 (CANM 198147); Ontario, Owen Sound, 16 September 1890 (CANM 198148).
= *H. pallescens* (Hedw.) P. Beauv.

Hypnum pseudo-montanum C. Mull. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 234. 1892.
ISOTYPE. Canada: Ontario, bed of Sydenham R., below Jone's Falls and below Potowattimie Falls, Owen Sound, 16 September 1890, CANADIAN MUSCI 539 (CANM 198149; 198150).
= *Hygrohypnum luridum* (Hedw.) Jenn.

Hypnum pseudo-neserosum Kindb., Sp. Eur. & N. Amer. Bryin. 1: 123. 1896.
ISOTYPE? Canada: New Brunswick, Queen's Co., *J. Moser*, 1889 (CANM 198151).
= *H. cupressiforme* var. *resupinatum* (Wils.) Schimp.

Hypnum renauldii Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 238. 1892.
SYNTYPES? Canada: Prince Edward Island, Hunter R., CANADIAN MUSCI 375 (as *H. (Harpidium) renauldi* Kindb.) (CANM 198156); British Columbia, Revelstoke, 3 May 1890 (CANM 198160); British Columbia, Sicamous, 3 July 1889 (CANM 198161); Ontario, Sydenham R. at Owen Sound, 17 July 1890 (CANM 198154); Ontario, Owen Sound, 16 September 1890 (CANM 198157); Prince Edward Island, Hunter R., 3 July 1888 (CANM 198158); Québec, near the lake N of Aylmer Road, near Hull, 14 May 1891 (CANM 198152).
= *H. lindbergii* Mitt.

Hypnum subcomplexum Kindb., Rev. Bryol. 22: 88. 1895.
ISOLECTOTYPE. Canada: Québec, along the Gaspé Coast, 2 August 1882 (CANM 189456).
= *H. vaucheri* Lesq.

Hypnum subimponens var. **cristulum** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 280. 1890.
ISOTYPE? Canada: British Columbia, southern part of Vancouver I., CANADIAN MUSCI 350 (as *H. subimponens* var. *cristula* Kindb.) (CANM 198167).

Hypnum substrigosum Kindb. *in* Mac., Ottawa Nat. 3: 151. 1890.
ISOTYPE? Canada: Ontario, Ottawa, 1889, CANADIAN MUSCI 449 (as *H. (Eurhynchium) substrigosum* Kindb.) (CANM 198065).
= *Eurhynchium pulchellum* (Hedw.) Jenn.

Hypnum torrentis C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 243 1892.
ISOTYPE. Canada: British Columbia, Hector, 12 August 1890 (CANM 198168).
= *Hygrohypnum smithii* (Sw.) Broth.

Hypnum uncinatum var. **micropterum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 229. 1892.
ISOTYPE. Canada: Labrador, Battle Harbour, *A.C. Waghorne*, 30 August 1891 (CANM 198171).
= *Drepanocladus uncinatus* (Hedw.) Warnst.

Hypnum uncinatum var. **subestriatum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 229. 1892.
SYNTYPES? Canada: Prince Edward Island, near Brackley Point, 1888, CANADIAN MUSCI 376 (as *H. (Harpidium) uncinatum* var. *substriatum* Kindb.) (CANM 198169); British Columbia, Revelstoke, 19 May 1890 (CANM 198104); Prince Edward Island, Brackley Point, 26 June 1888 (CANM 198172); Prince Edward Island, Hunter R., 2 July 1888 (CANM 198170).
= *Drepanocladus uncinatus* (Hedw.) Warnst.

Hypnum waghornei Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 234. 1892.
SYNTYPE. Canada: Newfoundland, Chance Cove, *A.C. Waghorne*, 26 September 1890 (CANM 198173).
= *Drepanocladus uncinatus* (Hedw.) Warnst.

Hypopterygium canadense Kindb., Rev. Bryol. 26: 46. 1899.
ISOTYPE. Canada: British Columbia, Queen Charlotte Is., *C.F. Newcombe*, 1898 (CANM 198174).
= *H. fauriei* Besch.

Isothecium brachycladon Kindb., Rev. Bryol. 22: 82. 1895.
ISOTYPE. Canada: British Columbia, Vancouver I., Sea's Farm, near Victoria, 6 May 1893 (CANM 198175).

Isothecium cardotii Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 275. 1892.
ISOTYPE? Canada: British Columbia, Hastings, 10 April 1889 (CANM 198178).
= *I. stoloniferum* var. *cardotii* (Kindb.) Wijk & Marg.

Isothecium myosuroides ssp. **brevinerve** Kindb., Ottawa Nat. 7: 20. 1893.
SYNTYPE. Canada: Newfoundland, Speedwell Bay, *A.C. Waghorne*, 11 December 1890 (CANM 198179).
= *I. eumyosuroides* ssp. *brevinerve* Kindb.

Isothecium myurellum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 278. 1890.
ISOTYPE. Canada: British Columbia, Vancouver I., Nanaimo R., 26 April 1887 (CANM 198180).
= *I. stoloniferum* var. *myurellum* (Kindb.) Wijk & Marg.

Isothecium obtusatulum Kindb., Rev. Bryol. 22: 83. 1895.
SYNTYPE? Canada: British Columbia, Vancouver I., Parson's Mt., near Victoria, 17 May 1893 (CANM 198181).
= *I. stoloniferum* Brid.

Isothecium thamnioides Kindb., Sp. Eur. & N. Amer. Bryin. 1: 36. 1896.
ISOTYPE. Canada: British Columbia, Vancouver I., Goldstream, 2 June 1893 (CANM 198185).
= *I. stoloniferum* var. *thamnioides* (Kindb.) Wijk & Marg.

Leptodontium canadense Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 45. 1892.
ISOTYPE. Canada: Ontario, Owen Sound, Sydenham R., 17 September 1890 (CANM 198186).
= *Hyophila involuta* (Hook.) Jaeg. & Sauerb.

Leptotrichum flexicaule ssp. **brevifolium** Kindb. *in* Mac & Kindb., Cat. Canad. Pl. 6: 46. 1892.
ISOTYPES. Canada: Alberta, Devil's Lake, 10 August 1891, CANADIAN MUSCI 550 (as *L. flexicaule* var. *brevifolium* Kindb.) (CANM 198187); Alberta, Devil's Lake, Dry Canyon, 10 August 1891 (CANM 198188).
= *Ditrichum flexicaule* f. *brevifolium* (Kindb.) Grout

Leptotrichum tomentosum Kindb., Ottawa Nat. 7: 18. 1893.
ISOTYPE. United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 3 July 1892 (CANM 198189).
= *Campylopus subulatus* var. *schimperi* (Milde) Husn.

Lescuraea imperfecta C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 170. 1892.
ISOTYPE. Canada: British Columbia, Revelstoke, W side of Columbia R., 9 May 1890, CANADIAN MUSCI 489 (CANM 198190).
= *L. stenophylla* (Ren. & Card.) Kindb.

Leskea nigrescens Kindb., Ottawa Nat. 2: 155. 1889 and Bull. Torrey Bot. Cl. 16: 97. 1889.
ISOTYPE? Canada: Ontario, Beechwood, near Ottawa, CANADIAN MUSCI 395 (CANM 198194).
= *Leskeella nervosa* var. *flagellifera* (Kindb.) Wijk & Marg.

Leskea subobtusifolia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 169. 1892.
SYNTYPES? Canada: British Columbia, Nelson, Kootanie R., 3 July 1890 (CANM 198195); British Columbia, Pass Creek Falls, 18 June 1890 (CANM 198196).
= *L. polycarpa* var. *paludosa* (Hedw.) Schimp.

Meesia macounii Kindb., Rev. Bryol. 32: 36. 1905.
ISOTYPE. Canada: Alberta, near Laggan, 25 July 1904 (CANM 198197; 198201).
= *M. longiseta* Hedw.

Mercya latifolia Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 94. 1889.
ISOTYPES. Canada: British Columbia, Vancouver I., Mount Finlayson at Goldstream, 1887, CANADIAN MUSCI 459 (CANM 198198); British Columbia, Mount Finlayson, near Victoria, 18 May 1887 (CANM 198199); British Columbia, Vancouver I., Mount Finlayson, 18 May 1887 (CANM 198200).
= *Crumia latifolia* (Kindb. *ex* Mac.) Schof.

Mielichhoferia recurvifolia Kindb., Rev. Bryol. 32: 36. 1905.
ISOTYPE. Canada: Alberta, Lake Agnes, 14 September 1904 (CANM 198202; 267889).
= *Ceratodon purpureus* (Hedw.) Brid.

Mnium blytti var. **microphyllum** Kindb., Ottawa Nat. 23: 184. 1910.
ISOLECTOTYPE. Canada: Yukon, Hunker Creek, 26 July 1902 (CANM 198203).
PARATYPES? Canada: Yukon, along Hunker Creek, 23 July 1902 (CANM 198204); Yukon, Hunker Creek, 26 July 1902 (CANM 198385).
= *M. blyttii* B.S.G.

Mnium cuspidatum var. **tenellum** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 136. 1892.
ISOTYPES. Canada: Prince Edward Island, Rustico Bay, CANADIAN MUSCI 203 (CANM 198206); Prince Edward Island, Rustico Bay, 3 July 1888 (CANM 198205).
= *Plagiomnium cuspidatum* (Hedw.) Kop.

Mnium decurrens C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 140. 1892.
SYNTYPE? Canada: British Columbia, Pass Creek, Sproat, 27 June 1890 (CANM 198210).
= *M. thomsonii* Schimp.

Mnium glabrescens Kindb., Ottawa Nat. 7: 18. 1893.
ISOLECTOTYPE. Canada: British Columbia, Vancouver I., Comox, 28 April 1887 (CANM 198212).
PARATYPES? Canada: British Columbia, Queen Charlotte Is., *G.M. Dawson*, July 1878 (CANM 198213); British Columbia, Vancouver I., Comox, 29 May 1887 (CANM 198211); British Columbia, Vancouver I., 8 May 1875 (CANM 273978). United States: Alaska, Port Etches, *J.M. Macoun*, 18 June 1892 (CANM 273979); Alaska, Sitka, *J.M. Macoun*, September 1891 (CANM 146084).
= *Rhizomnium glabrescens* (Kindb.) Kop.

Mnium glabrescens ssp. **chlorophyllosum** Kindb., Sp. Eur. & N. Amer. Bryin. 2: 340. 1897.
LECTOTYPE. Canada: Québec, Meech Lake, near Chelsea, 23 September 1893 (CANM 157671).
ISOLECTOTYPE. Canada: Québec, Chelsea, 23 September 1893 (CANM 198382).
= *Rhizomnium punctatum* ssp. *chlorophyllosum* (Kindb.) Kop.

Mnium insigne var. **intermedium** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 139. 1892.
ISOLECTOTYPE. Canada: British Columbia, Vancouver I., Cedar Hill, 17 April 1887 (CANM 198221).
= *Plagiomnium insigne* (Mitt.) Kop.

Mnium macounii Kindb., Rev. Bryol. 32: 33. 1905.
LECTOTYPE. Canada: Yukon, Hunker Creek, 23 July 1902 (CANM 198215).
ISOLECTOTYPE. Canada: Yukon, Hunker Creek, 23 July 1902 (CANM 198214).
PARATYPE. Canada: Yukon, Hunker Creek, 23 July 1902 (CANM 198384).
= *M. ambiguum* C. Müll.

Mnium macrociliare C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 137. 1892.
LECTOTYPE. Canada: British Columbia, Revelstoke, 14 May 1890 (CANM 198218).
PARATYPE. Canada: British Columbia, Revelstoke, 14 May 1890 (CANM 198219).
= *Plagiomnium ciliare* (C. Müll.) Kop.

Mnium medium ssp. **robustum** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 274. 1890.
ISOTYPE. Canada: British Columbia, Cedar Hill, near Victoria, 17 June 1887 (CANM 198220).
= *Plagiomnium insigne* (Mitt.) Kop.

Mnium niagarae Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 141. 1892.
ISOTYPES. Canada: Ontario, Niagara Falls, Whirlpool, 6 June 1891, CANADIAN MUSCI 581 (CANM 198223); Ontario, Niagara, Whirlpool, 6 June 1891 (CANM 198222).
= *M. marginatum* (With.) P. Beauv.

Mnium serratum var. **macounii** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 139. 1892.
ISOTYPE. Canada: Prince Edward Island, Rustico Bay, 16 July 1888 (CANM 198228).
= *M. spinulosum* B.S.G.

Mnium simplex Kindb., Rev. Bryol. 23: 22. 1896.
SYNTYPES? Canada: British Columbia, Vancouver I., Nanaimo, Mount Benson, 10 July 1893 (CANM 198229; 198230); British Columbia, mountains at Griffin Lake, 11 August 1889 (CANM 198231).
= *Roellia roellii* (Broth. *ex* Röll) Andr. *ex* Crum

Neckera douglasii var. **macounii** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 275. 1890.
SYNTYPES. Canada: British Columbia, Vancouver I. and Hastings, CANADIAN MUSCI 389 (CANM 198232); British Columbia, Hastings, 8 April 1889 (CANM 198233); British Columbia, Vancouver I., Comox, 29 April 1887 (CANM 198234).
= *N. douglasii* Hook.

Neckera menziesii var. **amblyclada** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 162. 1892.
ISOTYPE. Canada: British Columbia, Hector, 15 July 1885, CANADIAN MUSCI 567 (CANM 198235).
= *Metaneckera menziesii* (Hook. *ex* Drumm.) Steere

Neckera oligocarpa ssp. **pterantha** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 162. 1892.
ISOTYPE. Canada: British Columbia, 3 mi. below Hector, 13 August 1890 (CANM 198236).
= *N. pennata* var. *tenera* C. Müll.

Oligotrichum hercynicum var. **latifolium** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 149. 1892.
ISOTYPES. Canada: British Columbia, Selkirk Mts., Roger's Pass, CANADIAN MUSCI 661 (as *O. latifolium* Kindb.) (CANM 198238); British Columbia, Selkirk Mts., Roger's Pass, 31 July 1890 (CANM 198237).
= *O. hercynicum* (Hedw.) DC.

Orthotrichum affine var. **sublaeve** Kindb., Ottawa Nat. 14: 86. 1900.
ISOTYPE. Canada: Nova Scotia, Cape Breton I., Big Intervale, 16 July 1898 (CANM 153811).

Orthotrichum affine ssp. **subrivale** Kindb., Rev. Bryol. 34: 91. 1907.
ISOTYPE. Canada: Québec, Fraser's Falls, Murray River, 11 August 1905 (CANM 153798).
= *O. sordidum* Sull. & Lesq. *ex* Aust.

Orthotrichum anomalum var. **americanum** Vent. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 86. 1892.
SYNTYPES? Canada: Manitoba, Lake Winnipegosis, 6 July 1882 (CANM 198239); Manitoba, Lake Winnipegosis, July 1881 (CANM 198240).
= *O. anomalum* Hedw.

Orthotrichum connectens Kindb. *in* Mac., Ottawa Nat. 3: 150. 1890.
ISOTYPE? Canada: Ontario, Ottawa, Dow's Swamp, 16 September 1889 (CANM 154905).
= *Ulota crispa* (Hedw.) Brid.

Orthotrichum consimile ssp. **anomaloides** Kindb., Sp. Eur. & N. Amer. Bryin. 2: 310. 1897.
LECTOTYPE. Canada: Alberta, Rocky Mts., E end of Devil's Lake, 29 July 1891 (CANM 197621).
PARATYPES? Canada: Alberta, Rocky Mts., Banff, 6 September 1891 (CANM 199517); Alberta, Rocky Mts., Kananaskis, 24 June 1885 (CANM 199518).
= *O. anomalum* Hedw.

Orthotrichum lonchothecium C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 90. 1892.
SYNTYPES. Canada: British Columbia, Kootanie Lake, 13 July 1890 (CANM 198242); Alberta, Rocky Mts., Banff, 4 July 1891 (CANM 198241).
= *O. laevigatum* f. *macounii* Lawt. & Vitt *in* Lawt.

Orthotrichum lyellioides Kindb., Rev. Bryol. 23: 21. 1896.
ISOTYPE. Canada: British Columbia, Vancouver I., Comox, 3 May 1887 (CANM 153152).
= *O. lyellii* Hook. & Tayl.

Philonotis fontana var. **microblasta** C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 107. 1892.
ISOTYPE. Canada: British Columbia, Roger's Pass, 30 July 1890 (CANM 198248).
= *P. fontana* (Hedw.) Brid.

Philonotis fontana var. **microthamnia** Kindb., Ottawa Nat. 23: 183. 1910.
ISOTYPE. Canada: Yukon, Hunker Creek, 26 July 1902 (CANM 198249).

Philonotis glabriuscula Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 107. 1892.
ISOTYPES. Canada: New Brunswick, Queen's Co., *J. Moser*, 2 January 1890, CANADIAN MUSCI 578 (CANM 198254); New Brunswick, Canaan Forks, *J. Moser*, 2 January 1890 (CANM 198255).
= pp. *P. marchica* (Hedw.) Brid. & pp. *P. fontana* (Hedw.) Brid.

Philonotis macounii Lesq. & James, Mosses of N. Amer. 208. 1884.
ISOTYPE? Canada: British Columbia, near Victoria, 9 May 1875 (CANM 150788).
= *P. capillaris* Lindb.

Philonotis microcarpa Kindb., Rev. Bryol. 32: 37. 1905.
ISOTYPE. Canada: Alberta, Pipestone Creek, 8 July 1904 (CANM 267890).
= *P. fontana* var. *pumila* (Turn.) Brid.

Philonotis vancouveriensis Kindb., Sp. Eur. & N. Amer. Bryin. 2: 326. 1897.
SYNTYPES? Canada: British Columbia, Vancouver I., Nanaimo R., 26 April 1887 (CANM 198256). United States: Alaska, Nagni I., *J.M. Macoun*, 18 September 1892 (CANM 198257).
= *P. capillaris* Lindb.

Physcomitrium megalocarpum Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 94. 1889.
SYNTYPE. Canada: British Columbia, Vancouver I., Cedar Hill, CANADIAN MUSCI 147 (CANM 198259).

Physcomitrium platyphyllum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 269. 1892.
ISOTYPE. Canada: Ontario, near Ottawa, *J. Fletcher* (CANM 198260).
= *P. pyriforme* (Hedw.) Hampe

Plagiothecium brevipungens Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 215. 1892.
ISOTYPE. Canada: Ontario, Ottawa, McKay's Woods, 21 May 1885 (CANM 198261).
= *Calliciadium haldanianum* (Grev.) Crum

Plagiothecium membranosum Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 215. 1892.
SYNTYPE? Canada: Ontario, Belleville, June 1874 (CANM 198262).
= pp. *Herzogiella turfacea* (Lindb.) Iwats. & pp. *Brotherella recurvans* (Michx.) Fleisch.

Plagiothecium pseudo-latebricola Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 211. 1892.
SYNTYPES. Canada: British Columbia, Columbia R., 12 May 1890 (CANM 198263); British Columbia, Revelstoke, 3 May 1890 (CANM 198264).
= *Isopterygium pulchellum* (Hedw.) Jaeg. & Sauerb.

Plagiothecium undulatum ssp. **subneckeroideum** Kindb., Rev. Bryol. 36: 42. 1909 and Ottawa Nat. 23: 138. 1909.
ISOTYPE? Canada: British Columbia, Newcastle I., Departure Bay, 10 July 1908 (CANM 198265).
= *P. undulatum* (Hedw.) B.S.G.

Platygyrium rupestre Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 276. 1890.
ISOTYPES. Canada: British Columbia, Yale, 1889, CANADIAN MUSCI 469 (CANM 198269); British Columbia, above Yale, 17 May 1889 (CANM 198268).
= *Tripterocladium leucocladulum* (C. Müll.) Jaeg. & Sauerb.

Pogonatum erythrodontium Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 150. 1892.
SYNTYPES? Canada: British Columbia, Comox, 1889, CANADIAN MUSCI 430 (as *P. contortum* Lesq.) (CANM 198270); British Columbia, Comox, 3 May 1887 (CANM 198272). United States: Alaska, Prince of Wales I., *J.M. Macoun*, 28 September 1891 (CANM 198271).
= *P. contortum* (Brid.) Lesq.

Polytrichum alpinum var. **microdontium** Kindb. *in* Mac., Ottawa Nat. 5: 180. 1892.
ISOTYPE? United States: Alaska, St. Paul I., Behring Sea, *J.M. Macoun*, 30 July 1891 (CANM 198273).
= *Pogonatum alpinum* var. *septentrionale* (Brid.) Brid.

Polytrichum apiculatum Kindb., Rev. Bryol. 32: 35. 1905.
ISOTYPE. Canada: Alberta, Mount Molar Creek, 8 July 1904 (CANM 198274).
= *P. juniperinum* Hedw.

Polytrichum commune var. **canadense** *in* Mac. & Kindb., Cat. Canad. Pl. 6: 156. 1892.
SYNTYPES? Canada: British Columbia, Albert Canyon, 29 May 1890, CANADIAN MUSCI 563 (CANM 198275); British Columbia, Albert Canyon, 29 May 1890 (CANM 198276).
= *P. commune* Hedw.

Polytrichum juniperinum var. **waghornei** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 155. 1892.
ISOTYPE? Canada: Labrador, Deep Water Creek, Venison Tickle and Cape Charles, *A.C. Waghorne*, 17 September 1891 (CANM 198277).

Polytrichum macounii Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 96. 1889.
ISOTYPE? Canada: British Columbia, Vancouver I., Mount Arrowsmith, CANADIAN MUSCI 217 (as *P. (Pogonatum) macounii* Kindb.) (CANM 198278).
= *Pogonatum alpinum* var. *sylvaticum* (Hoppe) Lawt.

Pottia heimioides Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 43. 1892.
ISOTYPES. Canada: Alberta, Rocky Mts., Banff, 4 July 1891, CANADIAN MUSCI 559 (CANM 198279); Alberta, Rocky Mts., Banff, 4 July 1891 (CANM 198280).
= *Desmatodon heimii* (Hedw.) Mitt.

Pseudoleskea falcicuspis C. Müll & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 182. 1892.
SYNTYPE. Canada: British Columbia, Illicillewaet Canyon, near Revelstoke, 18 May 1890, CANADIAN MUSCI 510 (as *P. falicuspis* C. Müll. & Kindb.) (CANM 198281).
= *Lescuraea incurvata* (Hedw.) Lawt.

Pseudoleskea malacoclada C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 185. 1892.
ISOTYPE. Canada: British Columbia, Spence's Bridge, May 1889, CANADIAN MUSCI 460 (as *P. catenulata* Bruch & Schimp.) (CANM 198282).
= *Pseudoleskeella tectorum* (Funck *ex* Brid.) Kindb. *ex* Broth.

Pseudoleskea sciuroides var. **denudata** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 181. 1892.
ISOTYPE. Canada: British Columbia, Asulcan Creek, 7 August 1890, CANADIAN MUSCI 564 (CANM 198283).
= *Lescuraea radicosa* var. *denudata* (Kindb.) Lawt.

Pseudoleskea substriata Best, Bull. Torrey Bot. Cl. 27: 233. 1900.
HOLOTYPE. Canada: British Columbia, below Hector, 13 August 1890 (CANM 198284).
= *Lescuraea saxicola* (B.S.G.) Mol. *ex* Lor.

Pterigynandrum papillosulum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 165. 1892.
ISOTYPES. Canada: British Columbia, Deer Park, 4 June 1890, CANADIAN MUSCI 553 (CANM 198286); British Columbia, Deer Park, Arrow Lake, 4 June 1890 (CANM 198285).
= *P. filiforme* Hedw.

Pylaisia cyrtophylla Kindb., Sp. Eur. & N. Amer. Bryin. 1: 60. 1896.
ISOTYPE? Canada: Alberta, Athabasca Plains, 17 September 1872 (CANM 267891).

Pylaisia filari-acuminata C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 174. 1892.
ISOTYPES? Canada: British Columbia, Revelstoke, 3 May 1890, CANADIAN MUSCI 626 (CANM 198287); British Columbia, Revelstoke, W side of Columbia R., (CANM 198288).
= *Pylaisiella polyantha* (Hedw.) Grout

Pylaisia ontariensis Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 174. 1892.
SYNTYPE? Canada: Québec, Gaspé, Mt. Albert, 24 August 1882 (CANM 198289).
= *Pylaisiella polyantha* (Hedw.) Grout

Pylaisia pseudo-platygyrium Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 173. 1892.
ISOTYPE. Canada: Ontario, Nipigon Lake, 17 July 1884 (CANM 198290).
= *Pylaisiella polyantha* (Hedw.) Grout

Pylaisia selwyni Kindb., Ottawa Nat. 2: 156. 1889.
ISOTYPE? Canada: Ontario, Richmond Road, 15 May 1885 (CANM 198291).
= *Pylaisiella selwynii* (Kindb.) Crum, Steere & Anders.

Rhacomitrium alternuatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 73. 1892.
ISOTYPE? Canada: British Columbia, Selkirk Mts., summit of Roger's Pass, 6 August 1890, CANADIAN MUSCI 524 (CANM 203487).
= *R. heterostichum* var. *macounii* (Kindb. *ex* Mac.) G. Jones

Rhacomitrium brevipes Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 272. 1890.
ISOTYPES? Canada: British Columbia, Selkirk and Gold Range Mts., August 1889, CANADIAN MUSCI 614 (as *R. micropus* Kindb.) (CANM 203480); British Columbia, mountains N of Griffin Lake, 9 August 1889 (CANM 203474).
= *R. sudeticum* f. *brevipes* (Kindb.) Lawt.

Rhacomitrium canescens var. **muticum** Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 272. 1890.
ISOTYPES? Canada: British Columbia, Gold Range, on the mountains N of Griffin Lake, 1889, CANADIAN MUSCI 467 (CANM 198293); British Columbia, mountains N of Griffin Lake, 8 August 1889 (CANM 198292).

Rhacomitrium macounii Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 93. 1889.
SYNTYPE? Canada: British Columbia, Selkirk Range, 24 August 1885 (CANM 203479).
= *R. heterostichum* var. *macounii* (Kindb. *ex* Mac.) G. Jones.

Rhacomitrium microcarpum var. **palmeri** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 267. 1892.
ISOTYPE? United States: Alaska, St. Paul I., *W. Palmer*, 10 June 1890 (CANM 203485).
= *R. fasciculare* (Hedw.) Brid.

Rhacomitrium palmeri Kindb., Rev. Bryol. 23: 19. 1896.
SYNTYPES? United States: Alaska, Behring Sea, St. Paul I., *J.M. Macoun*, 1892, RENAULD & CARDOT, MUSCI AMER. SEPT. EXS. 367 (CANM 203475); Alaska, Behring Sea, St. Paul I., *J.M. Macoun*, 30 July 1892 (CANM 203488).
= *R. fasciculare* (Hedw.) Brid.

Rhacomitrium robustifolium Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 272. 1890.
ISOTYPE. Canada: British Columbia, Vancouver I., Mt. Arrowsmith, 17 July 1887 (CANM 203477; 203483; 203484).
= *R. heterostichum* var. *macounii* (Kindb. *ex* Mac.) G. Jones

Rhacomitrium tenuinerve Kindb., Rev. Bryol. 23: 19. 1896.
SYNTYPES? Canada: British Columbia, Vancouver I., Ucluelet, 7 June 1909 (CANM 198294; 198295); British Columbia, along the Columbia at Revelstoke, 19 May 1890 (CANM 198296). United States: Alaska, St. Paul I., *J.M. Macoun*, 3 July 1892 (CANM 198297).
= *R. fasciculare* (Hedw.) Brid.

Rhaphidostegium subadnatum C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 209. 1892.
SYNTYPES. Canada: Ontario, London, *J. Dearness*, May 1889 (CANM 198299); Québec, Gaspé, 2 August 1882 (CANM 198300).
= *Hypnum pallescens* (Hedw.) P. Beauv.

Rhaphidostegium whitei Kindb., Sp. Eur. & N. Amer. Bryin. 1: 63. 1896.
ISOTYPE? Canada(?): Ontario(?), *J. White*, 25 April 1892 (CANM 198298).
= *Brotherella recurvans* (Michx.) Fleisch.

Scleropodium obtusifolium var. **homomallum** Grout, Bull. Torrey Bot. Cl. 26: 534. 1899.
HOLOTYPE. Canada: British Columbia, Vancouver I., Goldstream, 18 May 1887 (CANM 181665).

Scouleria aquatica var. nigrescens Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 94. 1889.
LECTOTYPE. Canada: British Columbia, Vancouver I., Nanaimo, 27 April 1887 (CANM 133517).
= *S. aquatica* Hook.

Scouleria aquatica var. virescens Kindb. *in* Mac., Bull. Torrey Bot. Cl. 16: 93. 1889.
ISOTYPE. Canada: British Columbia, Selkirk Mts., close to the Glacier Hotel, 1885, CANADIAN MUSCI 105 (CANM 198303).
= *S. aquatica* Hook.

Scouleria muelleri Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 62. 1892.
LECTOTYPE. Canada: British Columbia, Revelstoke, 12 May 1892, CANADIAN MUSCI 558 (CANM 198302).
= *S. aquatica* Hook.

Seligeria campylopoda Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 41. 1892.
ISOTYPES. Canada: Ontario, Owen Sound, CANADIAN MUSCI 60 (CANM 154812); Ontario, Owen Sound, 16 September 1890 (CANM 198305; 198307).

Seligeria subcampylopoda Kindb., Rev. Bryol. 32: 35. 1905.
ISOTYPES? Canada: Alberta, near the head of Lake Louise, 13 September 1904 (CANM 198309); Alberta, head of Lake Louise, 13 September 1904 (CANM 198308).
= *S. campylopoda* Kindb. *in* Mac. & Kindb.

Sphagnum labradorense Warnst. *in* Kindb. & Mac., Cat. Canad. Pl. 6: 253. 1892.
ISOTYPE. Canada: Newfoundland, Black River, Placentia Bay, *A.C. Waghorne*, 7 May 1891 (CANM 105499).
= *S. molle* Sull.

Tetraplodon mnioides ssp. breweri var. brevicollis Kindb., Ottawa Nat. 23: 142. 1909.
ISOTYPE. Canada: Yukon, Bonanza Creek, 18 July 1902 (CANM 198310).

Thelia compacta Kindb., Ottawa Nat. 4: 62. 1890.
ISOTYPE? Canada: Ontario, Northumberland Co., Seymour, CANADIAN MUSCI 433 (CANM 198311).
= *T. hirtella* (Hedw.) Sull.

Thuidium leskeoides Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 277. 1890.
ISOTYPE? Canada: British Columbia, Vancouver I., Cedar Hill, 20 April 1887 (CANM 198312).
= *Claopodium whippleanum* (Sull.) Ren. & Card.

Thuidium pseudo-abietinum Kindb., Ottawa Nat. 7: 20. 1893.
ISOTYPE. Canada: Ontario, Brittania, 11 September 1890 (CANM 198313).
= *Helodium blandowii* (Web & Mohr) Warnst.

Thuidium pseudo-gracile Kindb., Sp. Eur. & N. Amer. Bryin. 1: 56. 1896.
ISOTYPE. Canada: Ontario, Leamington, 19 September 1890 (CANM 198314).
= *Haplocladium virginianum* (Brid.) Broth.

Thuidium vancouveriense Kindb. *in* Mac., Bull. Torrey Bot. Cl. 17: 277. 1890.
ISOTYPE. Canada: British Columbia, Vancouver I., Mt. Finlayson, 31 May 1887 (CANM 198105).
= *Bestia vancouveriensis* (Kindb.) Wijk & Marg.

Trematodon scicularis Kindb., Rev. Bryol. 23: 18. 1890.
ISOTYPE? Canada: British Columbia, Cragellaichie, 18 July 1889 (CANM 198315).
= *T. ambiguus* (Hedw.) Hornsch.

Ulota camptopoda Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 85. 1892.
SYNTYPES? Canada: Québec, Hull, Aylmer Road, 24 April 1891, CANADIAN MUSCI 582 (CANM 198316); Québec, W of Hull, 26 April 1891 (CANM 154914).
= *U. crispa* (Hedw.) Brid.

Ulota connectens Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 85. 1892.
SYNTYPE? Canada: Ontario, Ottawa, Dow's Swamp, October 1889, CANADIAN MUSCI 557 (CANM 198317).
= *U. crispa* (Hedw.) Brid.

Ulota maritima C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 84. 1892.
SYNTYPES? United States: Alaska, Kodiak I., *J.N. Macoun*, 22 September 1891 (CANM 198319); Alaska, Behring Sea, Ounalaska I., *J.N. Macoun*, 21 August 1891 (CANM 198320).
= *U. phyllantha* Brid.

Ulota obtusiuscula C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 82. 1892.
SYNTYPES. Canada: British Columbia, Westminister Junction, 26 April 1888, CANADIAN MUSCI 523 (CANM 198321); British Columbia, Vancouver I., *G.M. Dawson*, July 1885 (CANM 198322).

Ulota scabrida Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 83. 1892.
SYNTYPES? Canada: British Columbia, 3 mi. below Hector, 13 August 1890 (CANM 198323); British Columbia, below Hector, 13 August 1890 (CANM 198325); British Columbia, Hector, 13 August 1890 (CANM 198324); British Columbia, Rocky Mts., Kicking Horse Lake, 29 July 1885 (CANM 198326).
= *U. curvifolia* (Wahl.) Lilj.

Ulota subulifolia C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 82. 1892.
ISOTYPE. Canada: British Columbia, New Westminister Junction, 26 April 1889 (CANM 199516).
= *U. megalospora* Vent. *in* Röll

Webera canaliculata C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 113. 1892.
ISOTYPE. Canada: British Columbia, Vancouver I., Salt Spring I., 10 May 1887 (CANM 198327).
= *Pohlia rutilans* (Schimp.) Lindb.

Webera columbica Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 115. 1892.
SYNTYPES? Canada: British Columbia, Revelstoke, 6 May 1890 (CANM 198329); British Columbia, Revelstoke, 16 May 1890 (CANM 141495); British Columbia, Telegraph Trail, 7 June 1875 (CANM 198330); British Columbia, Quesnel, 5 July 1875 (CANM 141491).
= *Pohlia columbica* (Kindb. *in* Mac. & Kindb.) Andr.

Webera ludwigii var. **microphylla** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 117. 1892.
ISOTYPE. Canada: British Columbia, mountains at Griffin Lake, 7 August 1889 (CANM 198333).
= *Pohlia ludwigii* (Spreng. *ex* Schwaegr.) Broth.

Webera micro-apiculata C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 115. 1892.
SYNTYPES. Canada: British Columbia, Rocky Mts., Hector, 13 August 1890, CANADIAN MUSCI 637 (CANM 198335); British Columbia, Eagle Pass, 23 May 1890 (CANM 198334).
= *Pohlia cruda* (Hedw.) Lindb.

Webera nutans var. **macrospora** Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 113. 1892.
ISOTYPE. Canada: British Columbia, mountains N of Griffin Lake, 9 August 1889 (CANM 198337).
= *Pohlia nutans* (Hedw.) Lindb.

Webera polymorphoides Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 111. 1892.
ISOTYPE? Canada: British Columbia, Selkirk Mts., Hermit Mt., 1890, CANADIAN MUSCI 636 (CANM 198338).
= *Pohlia drummondii* (C. Müll.) Andr.

Webera pycno-decurrens C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 114. 1892.
ISOTYPE. Canada: British Columbia, mountains N of Griffin Lake, 10 August 1889 (CANM 197916).
= *Pohlia drummondii* (C. Müll.) Andr.

Webera subcucullata C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 113. 1892.
SYNTYPES? Canada: Québec, summit of Mount Albert, Gaspé and also British Columbia, summit of Gold Range, N of Griffin Lake, August 1889, CANADIAN MUSCI 424 (CANM 198341); British Columbia, Mt. Queest, July 1889 (CANM 198339); British Columbia, mountains N of Griffin Lake, 8 August 1889 (CANM 198340).
= *Pohia drummondii* (C. Müll.) Andr.

Weisia convoluta C. Müll. & Kindb. *in* Mac. & Kindb., Cat. Canad. Pl. 6: 14. 1892.
ISOTYPE? Canada: British Columbia, Silver City, 10 August 1885 (CANM 198343).
= *Dicranoweisia crispula* (Hedw.) Milde

Weissia pusilla Kindb., Rev. Bryol. 23: 20. 1896.
ISOTYPES? Canada: Ontario, Owen Sound, 31 July 1871 (CANM 198344); Ontario, Owen Sound, 27 July 1874 (CANM 198345).
= *Gymnostomum calcareum* Nees & Hornsch.

Zygodon crispatus Kindb., Rev. Bryol. 23: 21. 1896.
SYNTYPES? Canada: British Columbia, Eagle Pass, Revelstoke, 9 May 1890 (CANM 117357); British Columbia, Yale, 17 May 1889 (CANM 198346).
= *Amphidium lapponicum* (Hedw.) Schimp.

Zygodon lapponicus ssp. decipiens Kindb., Sp. Eur. & N. Amer. Bryin. 2: 317. 1897.
SYNTYPE? Canada: British Columbia, Agassiz, 15 May 1889 (CANM 198347).
= *Amphidium mougeotii* (B.S.G.) Schimp.

Anthoceros macounii M.A. Howe, Bull. Torrey Bot. Cl. 25: 19. 1898.
ISOTYPE. Canada: Québec, Leamy's Lake near Hull, 6 October 1889, CANADIAN HEPATICAE 81 (CANM 14120).

Frullania selwyniana Pears., Geol. & Nat. Hist. Surv. Can. (List of Canad. Hep.) 1: 1. 1890.
ISOTYPE. Canada: Québec, Ste. Anne R., 19 August 1882 (CANM 3147).

Jungermannia floerkii var. alpina Pears., Geol. & Nat. Hist. Surv. Can. (List of Canad. Hep.) 1: 22. 1890.
ISOTYPE. Canada: British Columbia, Rocky Mts., Kicking Horse Lake, 20 July 1885 (CANM 562; 566).
= *Barbilophozia floerkei* (Web. & Mohr) Loeske

Jungermannia macounii Aust., Proc. Acad. Nat. Sci. Phil. 21(1869): 222. 1870.
ISOTYPE? Canada: Ontario, Hastings Co., 15 July 1868 (CANM 1722).
= *Cephalozia macounii* (Aust.) Aust.

Jungermannia wattiana Aust., Bull. Torrey Bot. Cl. 3: 11. 1872.
ISOTYPE? Canada: Ontario, Lake Superior, 30 July 1869 (CANM 4341).
= *Lophozia heterocolpos* (Thed.) M.A. Howe

Lejeunea macounii Spruce *ex* Underw., Bull. Torrey Bot. Cl. 17: 259. 1890.
ISOTYPE. Canada: British Columbia, Hastings, 8 April 1889 (CANM 2254).
= *Cololejeunea macounii* (Spruce *ex* Underw.) Evans

Lejeunea serpyllifolia var. **americana** Lindb., Acta Soc. Sci. Fennicae 10: 486. 1875.
SYNTYPE? Canada: Ontario, along the Moira R. at Belleville, 1865 (CANM 4458).
= *L. cavifolia* (Ehrh.) Lindb.

Lophocolea macounii Aust., Proc. Acad. Nat. Sci. Phil. 21(1869): 223. 1870.
SYNTYPES? Canada: Ontario near Belleville, 1866 (CANM 4973); Ontario, Hastings Co., 17 October 1867 (CANM 4979).
= *L. heterophylla* (Schrad.) Dum.

Metzgeria furcata var. pacifica Brinkm., Bryologist 34: 15. 1931.
HOLOTYPE. Canada: British Columbia, Hastings, 12 April 1889 (CANM 6059).

Scapania peckii Aust., Proc. Acad. Nat. Sci. Phil. 21(1869): 218. 1870.
SYNTYPE? Canada: Ontario, Belleville, July 1867 (CANM 9117).
= *S. glaucocephala* (Tayl.) Aust.

Sphagnoecetis macounii Aust., Bull. Torrey Bot. Cl. 3: 13. 1872.
ISOTYPE. Canada: Ontario, 25 mi. N of Michpicoten, 28 July 1869 (CANM 6625).
= *Odontoschisma macounii* (Aust.) Underw.

TYPE SPECIMENS FROM OTHER SOURCES

MUSCI

Acanthocladium benguetense var. **latifolium** Bartr., Farlowia 1: 187. 1943.
ISOTYPE. Burma: Kareni, Nataung, *F.G. Dickason 9444* (CANM 197305).
= *Wijkia benguetense* var. *latifolia* (Bartr.) Crum

Acroporium jamaicense Crum & Bartr., Bull. Inst. Jamaica Sci. ser. 8: 66. 1958.
HOLOTYPE. Jamaica: Portland Parish, John Crow Mts., ca. 1.3 mi. SW of Ecclesdown, *G.L. Webster 5583* (CANM 197307).
PARATYPE. Jamaica: Portland Parish, John Crow Mts., 1.5 mi. SW of Ecclesdown, *G.L. Webster 5203* (CANM 197306).

Acroporium novae-guineae Bartr., Brittonia 13: 377. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, Angoram Hills near Passam Village, *R.G. Robbins 2139* (CANM 197308).

Acroporium percaudatum Bartr., Brittonia 13: 377. 1961.
ISOTYPE. New Guinea: Madang Dist., Lower Ramu-Atitau area, Asai Valley, Schrader Range near Aiome patrol post, *R.G. Robbins 1377* (CANM 197309).
PARATYPE. New Guinea: Madang Dist., Lower Ramu-Atitau area, Mombasop Village, slopes of Schrader Ranges near Asai Valley, *R.G. Robbins 1365* (CANM 197310).

Aerobryopsis mexicana Card., Rev. Bryol. 37: 8. 1910.
SYNTYPE. Mexico: Puebla, Honey Station, PRINGLE, PLANTAE MEXICANAE 15044 (CANM 197313).

Aerobryopsis philippinensis Bartr., Philipp. J. Sci. 68: 222. 1939.
ISOTYPE. Philippines: Luzon, Pampanga Prov., Camp Stotsenburg, Mt. Pinatubo, *A.D.E. Elmer 22083* (CANM 111300).

Aeroryopsis scariosa Bartr., Philipp. J. Sci. 68: 223. 1939.
ISOTYPE. Philippines: Luzon, Mountain Prov., Mt. Santo Tomas, *H.H. Bartlett 13310* (CANM 256378; 197314).

Aloinella apiculata Bartr., J. Washington Acad. Sci. 26: 9. 1936.
ISOTYPE. Jamaica: Arutully, *C.R. Orcutt 6802* (CANM 132019).

Alsia longipes Sull. & Lesq., Musci Bor. Amer. ed. 2: 66. 1865.
ISOTYPE. United States: California, *H. Bolander*, SULLIVANT & LESQUEREUX, MUSCI BOR. AMER. 399 (CANM 197315).
= *Bestia longipes* (Sull. & Lesq.) Broth.

Amblyodon dealbatus var. **americanus** Ren. & Card., Hedwigia 77: 131. 1937.
ISOTYPE. United States: Minnesota, Osceola, *J.M. Holzinger*, RENAULD & CARDOT, MUSCI AMER. SEPT. 180 (CANM 149228).
= *A. dealbatus* (Hedw.) B.S.G.

Amblystegium americanum Grout, Bryologist 13: 32. 1910.
ISOTYPE. United States: Wisconsin, Trempealeau Ridge along Mississippi R., *J.M. Holzinger*, Grout, N. AMER. MUSCI PLEUR. 335 (CANM 197316).
= *Conardia compacta* (C. Müll.) Robins.

Amblystegium vacillans Sull., Icon. Musc. Suppl. 96: 72. 1874.
ISOTYPE. United States: New Hampshire, White Mts., *W. Oakes & W.S. Sullivant* (CANM 197318).
= *A. riparium* (Hedw.) B.S.G.

Amblystegium varium var. **parvulum** Aust. *ex* Grout, Moss Fl. N. Amer. 3: 70. 1931.
ISOTYPE. United States: New Jersey, AUSTIN, MUSCI APPAL. 378 (CANM 172559).
= *A. varium* (Hedw.) Lindb.

Amphidium papillosum Bartr., Philipp. J. Sci. 68: 48. 1939.
ISOTYPE. Philippines: Luzon, Mountain Prov., Mt. Santo Tomas, *H.H. Bartlett 13275* (CANM 197319).

Andreaea blyttii B.S.G., Bryol. Eur. 6: 155. 1855 (fasc. 62-64 Mon. 25.13).
ISOTYPE. Finland (Finmarkiae): *M.N. Blytt* (CANM 106976).

Andreaea nivalis var. **baileyi** Holz., Musci Acro. Bor. Amer. n. 501. 1924.
ISOTYPE. United States: Washington, Snohomish Co., Mt. Pilchuck, *J.W. Bailey*, HOLZINGER, MUSCI ACRO. BOR. AMER. 501 (CANM 197322).
= *A. nivalis* Hook.

Andreaea pulvinata Beck., Trans. New Zealand Inst. 25: 293. 1893.
ISOTYPE. New Zealand: Canterbury, Rockwood, *T.W.N. Beckett 359* (CANM 250908).

Anisothecium brachydontium Crum & Steere, Bryologist 59: 247. 1956.
ISOTYPE. Puerto Rico: S of San Lorenzo, km 11.2, unfinished road to Patillas, *W.C. Steere 6808* (CANM 197323).

Anisothecium crispum var. **atlanticum** C. Jens., Bot. Faerões Dan. Invest. 1: 161. 1901.
ISOTYPE. Denmark: Faeroes, Strøme, Vestmannahavn Bø, *C. Jensen*, 7 June 1896 (CANM 197324).

Anoectangium gradatum Card., Rev. Bryol. 36: 107. 1909.
ISOTYPE. Mexico: Federal Dist., Mexico Valley, Canada above Contreras, PRINGLE, PLANTAE MEXICANAE 10582 (CANM 197325).

Anoectangium leibmanni var. **viride** Card., Rev. Bryol. 36: 107. 1909.
SYNTYPE. Mexico: Nuevo Leon, Sierra Madre near Monterrey, PRINGLE, PLANTAE MEXICANAE 10455 (CANM 197326).

Anoectangium walkeri Broth., Rec. Bot. Surv. India 1: 311. 1899.
ISOTYPE. India: Coorg, Mercara, *T.L. Walker 277* (CANM 197327).

Anomobryum filiforme var. **americanum** Ren. & Card., Bot. Gaz. 22: 51. 1896.
ISOTYPE. United States: Wisconsin, Trempealeau Mt., *J.M. Holzinger*, RENAULD & CARDOT, MUSCI AMER. SEPT. 306 (CANM 197328).
= *Pohlia filiformis* (Dicks.) Andr.

Anomobryum mucronatulum Card., Rev. Bryol. 36: 112. 1909.
ISOTYPE. Mexico: Jalisco, near Guadalajara, PRINGLE, PLANTAE MEXICANAE 10571 (CANM 197329).

Anomobryum plicatum Card., Rev. Bryol. 36: 112. 1909.
ISOTYPE. Mexico: Hidalgo, near Honey Station, PRINGLE, PLANTAE MEXICANAE 15058 (CANM 197330).

Archidium cubense Williams, Bryologist 22: 2. 1919.
ISOTYPE. Cuba: Santa Clara, Manacas, *Bro. Leon 6002* (CANM 112180).

Archidium donnellii Aust., Bull. Torrey Bot. Cl. 6: 190. 1877.
ISOTYPE. United States: Virginia, Prince Edward Co., environs of Hampden Sidney College, *J.D. Smith*, AUSTIN, MUSCI APPAL. 455 (CANM 112184).

Astrophyllum medium var. **arcticum** C. Jens., Medd. Groenland 15: 371. 1898.
SYNTYPE. Greenland: eastern Greenland, *N. Hartz*, 1 & 2 July 1891-1892 (CANM 155832).
= *Plagiomnium medium* ssp. *curvatulum* (Lindb.) Kop.

Atrichum conterminum Card., Rev. Bryol. 37: 5. 1910.
SYNTYPE. Mexico: Federal Dist., Canada, Valley of Mexico, PRINGLE, PLANTAE MEXICANAE 10551 (CANM 197331).
= *A. angustatum* var. *conterminum* (Card.) Wijk & Marg.

Atrichum novae-guineae Bartr., Rev. Bryol. Lich. 30: 206. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Upper Ambum river valley ascending the track to Marimuni, *R.G. Robbins 3035* (CANM 208113).

Atrichum portoricense Crum & Steere, Bryologist 59: 254. 1956.
ISOTYPE. Puerto Rico: Mt. Guilarte, W of Adjuntas, *W.C. Steere 7212* (CANM 208115).

Aulacomnium palustre var. **rupestre** Aust., Musci Appal. n. 219. 1870.
ISOTYPE. United States: New Jersey, Palisades, near Closter, *C.F. Austin*, AUSTIN, MUSCI APPAL. 219 (CANM 148787).
= *A. palustre* (Hedw.) Schwaegr.

Barbella elongata Williams, Bull. New York Bot. Gard. 8: 356. 1914.
PARATYPE. Philippines: Luzon, Benguet Prov., Bagui, *R.S. Williams 1693* (CANM 197332).
= *B. pendula* (Sull.) Fleisch.

Barbula abbonii Thér., Smiths. Misc. Coll. 85(4): 20. 1931.
ISOTYPE. Mexico: Nuevo Leon, Monterrey, *Fre. Abbon 10970* (CANM 197333).

Barbula altiseta Card., Rev. Bryol. 36: 85. 1909.
ISOTYPE. Mexico: Michoacan, Patzcuaro, PRINGLE, PLANTAE MEXICANAE 751 (CANM 197334).

Barbula artocarpa Lesq., Trans. Amer. Phil. Soc. n. ser. 13: 4. 1865.
ISOTYPE. United States: California, San Francisco, Mount Diablo, *H. Bolander*, SULLIVANT & LESQUEREUX, MUSCI BOR. AMER. 133 (CANM 197335).
= *B. vinealis* Brid.

Barbula bakeri Card. & Thér., Bot. Gaz. 37: 367. 1904.
SYNTYPE. United States: California, Santa Clara Co., near Alma, *C.F. Baker*, HOLZINGER, MUSCI ACRO. BOR. AMER. 157 (CANM 197336).
= *B. vinealis* Brid.

Barbula ehrenbergii var. **mexicana** Thér., Smiths. Misc. Coll. 85(4): 19. 1931.
ISOTYPE. Mexico: Nuevo Leon, Monterrey, *Fre. Abbon 10969* (CANM 197338).
= *B. ehrenbergii* (Lor.) Fleisch.

Barbula farriae Crum & Bartr., Bull. Inst. Jamaica Sci. ser. 8: 25. 1958.
HOLOTYPE. Jamaica: on road, ca. ½ mi. WSW of Ecclesdown, *M.L. Farr 12* (CANM 197339).

Barbula haringae Crum, Southw. Natural. 1: 36. 1956.
HOLOTYPE. United States: Arizona, Cochise Co., W of Huachuca Military Reserve, *L.N. Goodding Cry. 85* (CANM 197340).
PARATYPES. United States: Arizona, Huachuca Game Preserve, South Huachuca Canyon, *L.N. Goodding Cry. 285, 293* (CANM 128331; 128332).
= *B. amplexifolia* (Mitt.) Jaeg. & Sauerb.

Barbula hypselostegia Card., Rev. Bryol. 36: 84. 1909.
ISOTYPE. Mexico: Hidalgo, Honey Station, PRINGLE, PLANTAE MEXICANAE 10653 (CANM 197341; 197342).
= *B. indica* (Hook.) Spreng. *in* Steud.

Barbula johansenii Williams, Rep. Canad. Arct. Exp. 1913-18, 4(E): 4. 1921.
ISOTYPE. Canada: Northwest Territories, Franklin Dist., Victoria I., Wollaston Land, Murray Point, *F. Johansen*, 25 March 1916 (CANM 197344).
= *Didymodon johansenii* (Williams) Crum

Barbula leptodontoides Crum & Steere, Amer. Midland Natural. 60(1): 17. 1958.
ISOTYPE. Haiti: Arrondissement de Jérémie, southern peninsula, Beaumont to Morne Geffrard, *H.H. Bartlett 17651* (CANM 197345).
PARATYPE. Haiti: Arrondissement de Jérémie, southern peninsula, Beaumont to Morne Geffrard, *H.H. Bartlett 17655* (CANM 197346).

Barbula lozanoi Card., Rev. Bryol. 36: 85. 1909.
SYNTYPE. Mexico: Nuevo Leon, Sierra Madre, near Monterrey, PRINGLE, PLANTAE MEXICANAE 10459 (CANM 197347).

Barbula mannise C. Müll., Flora 70: 222. 1887.
ISOTYPE. United States: Colorado, Manitou, *M.R. Mann*, May 1886 (CANM 197348).
= *Desmatodon obtusifolius* (Schwaegr.) Jur.

Barbula nipponica Nog., J. Jap. Bot. 27: 286. 1952.
PARATYPE. Japan: Kumamoto, Kuma, Ohno, *K. Mayebara*, NOGUCHI & HATTORI, MUSCI JAP. 252 (CANM 197350).

Barbula nipponica var. **gracilis** Nog., J. Jap. Bot. 27: 286. 1952.
ISOTYPE. Japan: Kumamoto, Kuma, Isshoochi, *K. Mayebara*, NOGUCHI & HATTORI, MUSCI JAP. 253 (CANM 197351).

Barbula pringlei Card., Rev. Bryol. 36: 85. 1909.
ISOLECTOTYPE. Mexico: Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10637 (CANM 197352).
= *B. indica* (Hook.) Spreng. *in* Steud.

Barbula robbinsii Bartr., Brittonia 13: 370. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, near Passam village, North Angoram Hills, *R.G. Robbins 2137* (CANM 197353).

Barbula rubricaulis Thér., Smiths. Misc. Coll. 85(4): 19. 1931.
ISOTYPE. Mexico: Nuevo Leon, Monterrey, *Fre. Abbon 10968* (CANM 197354).
= *B. arcuata* Griff.

Barbula spiralis var. **emarginata** Card., Rev. Bryol. 36: 84. 1909.
ISOTYPE. Mexico: Mexico, Amecameca, PRINGLE, PLANTAE MEXICANAE 10611 (CANM 197355).
= *Pseudocrossidium replicatum* (Tayl.) Zander

Barbula subteretiuscula Card., Rev. Bryol. 36: 85. 1909.
ISOTYPE. Mexico: Hidalgo, Cuyamaloya, Sierra de Pachuca, PRINGLE, PLANTAE MEXICANAE 10621 (CANM 197356).

Barbula subulifolia Sull., Proc. Amer. Acad. Arts Sci. 5: 277. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 32 (CANM 197357).
= *B. arcuata* Griff.

Barbula whitehousese Crum, Southw. Natural. 1: 35. 1956.
HOLOTYPE. United States: Texas, Fannin Co., Lake Crockett, about 12 mi. N of Honey Grove, *E. Whitehouse 21001* (CANM 197358).
PARATYPE. United States: Texas, Tarrant Co., Post Oak Belt, near Christman place, Eagle Mountain Lake, *E. Whitehouse 17984* (CANM 197359).
= *B. eustegia* Card. & Thér.

Bartramia hispida Mitt., J. Linn. Soc. Bot. 12: 264. 1869.
ISOTYPE. Jamaica?: *Miles* (CANM 197385).
= *Breutelia hispida* (Mitt.) Jaeg.

Blindia martinii Sainsb., Rev. Bryol. Lich. 18: 111. 1949.
SYNTYPE. New Zealand: Canterbury, Arthur's Pass, *W. Martin*, January 1944 (CANM 197361).

Brachymenium condensatum Williams, Bryologist 26: 2. 1923.
ISOTYPE. Mexico: Michoacan, Patzcuaro, PRINGLE, PLANTAE MEXICANAE 762 (CANM 197362).

Brachymenium imbricatum var. **validinervium** Card., Rev. Bryol. 36: 111. 1909.
ISOTYPE. Mexico: Morelos, Cuernavaca, PRINGLE, PLANTAE MEXICANAE 15028 (CANM 197363).
= *B. muenchii* Broth. *ex* Card.

Brachymenium walkeri Broth., Rec. Bot. Surv. India 1: 320. 1899.
SYNTYPE. India: Coorg, Verajpet, *T.L. Walker* 124 (CANM 197364).

Brachythecium alboviride Besch. *ex* Card., Rev. Bryol. 37: 69. 1910.
ISOTYPE. Mexico: *Hahn* (CANM 197366).

Brachythecium flexinerve Card., Rev. Bryol. 37: 67. 1910.
ISOTYPE. Mexico: Hidalgo, Cuyamaloya, PRINGLE, PLANTAE MEXICANAE 10620 (CANM 197368).

Brachythecium glareosum f. **americanum** Grout, N. Amer. Musci Pleur. Suppl. n. 16. 1929.
ISOTYPE. Canada: British Columbia, Arrow Lakes, Halcyon Hot Springs, *F.A. MacFadden*, GROUT, N. AMER. MUSCI PLEUR. SUPPL. 16 (CANM 197369).

Brachythecium hastifolium Card., Rev. Bryol. 37: 69. 1910.
SYNTYPE. Mexico: Hidalgo, Honey Station, PRINGLE, PLANTAE MEXICANAE 10474 (CANM 197370).
= *Heterophyllium hastifolium* (Card.) Fleisch.

Brachythecium hylocomoides Card., Rev. Bryol. 37: 69. 1910.
ISOTYPE. Mexico: Hidalgo, Honey Station, PRINGLE, PLANTAE MEXICANAE 10484 (CANM 197371).

Brachythecium lamprochryseum var. **solfatarense** Grout, N. Amer. Musci Pleur. n. 327. 1912.
ISOTYPE. United States: Wyoming, Yellowstone National Park, Solfatara Creek, *M.B. Streeter*, GROUT, N. AMER. MUSCI PLEUR. 327 (CANM 197372).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium lanceolifolium var. **gracile** Card., Rev. Bryol. 37: 66. 1910.
SYNTYPE. Mexico: Nuevo Leon, Sierra Madre above Monterrey, PRINGLE, PLANTAE MEXICANAE 10453, 10454 (CANM 197373).

Brachythecium longidecurrens Bartr., Farlowia 2(3): 318. 1946.
ISOTYPE? Chile: Prov. Magellanes, Fuegia media, Rio Bueno, *H. Roivainen*, 9 December 1928 (CANM 111688).

Brachythecium novae-guineae Bartr., Rev. Bryol. Lich. 30: 202. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Mt. Hagen above Yaramanda, *R.G. Robbins 2725* (CANM 197374).

Brachythecium oxycladon f. falcatum Grout, Moss Flora N. Amer. 3: 36. 1928.
ISOTYPE. United States: Michigan, Cheboygan Co., dry banks bordering Douglas Lake, *G.E. Nichols 141* (CANM 197375).
= *B. salebrosum* (Web. & Mohr) B.S.G.

Brachythecium pacificum Jenn., Bryologist 16: 95. 1913.
ISOTYPE. Canada: British Columbia, Queen Charlotte Is., Skidegate, *W. Spreadborough*, 1 July 1910 (CANM 197376).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium petrophilum f. lanceolatum Grout, Moss Flora N. Amer. 3: 47. 1928.
ISOTYPE. United States: Arizona, Santa Cruz Co., Patagonia Mts., *E.B. Bartram*, GROUT, N. AMER. MUSCI PLEUR. SUPPL. 6 (CANM 197377).
= *B. velutinum* var. *venustum* (De Not.) Arc.

Brachythecium plumosum var. **sublaevipes** Card., Rev. Bryol. 37: 70. 1910.
SYNTYPE. Mexico: Federal Dist., canyon above Contreras, PRINGLE, PLANTAE MEXICANAE 10552 (CANM 197378).

Brachythecium populeum var. **ovatum** Grout, Mem. Torrey Bot. Cl. 6: 190. 1897.
SYNTYPE. United States: Vermont, Johnson, *A.J. Grout*, GROUT, N. AMER. MUSCI PLEUR. 4 (CANM 197379; 197380).
= *B. populeum* (Hedw.) B.S.G.

Brachythecium rivulare var. **laxum** Grout, Bryologist 4: 48. 1901.
ISOTYPE. United States: Montana, Flathead Co., Lake McDonald, along Avalanche Trail, *J.N. Holzinger & J.B. Blake*, GROUT, N. AMER. MUSCI PLEUR. 78 (CANM 197381).
= *B. frigidum* (C. Müll.) Besch.

Brachythecium rutabulum var. **undulatum** Warnst., Allg. Bot. Zeitschr. 5(Beih. 1): 37. 1899.
ISOTYPE? Italy: Prov. Papiensis, Torre d'Isala, *P. Aug. Artaria*, 16 January 1898 (CANM 180278).

Brachythecium tenuinerve Card., Rev. Bryol. 37: 65. 1910.
SYNTYPES. Mexico: Amecameca, PRINGLE, PLANTAE MEXICANAE 10585 (CANM 197383); Hidalgo, Cuyamaloya, PRINGLE, PLANTAE MEXICANAE 10624 (CANM 197382).

Brachythecium washingtonianum Eaton *ex* Grout, Bryologist 3: 12. 1900.
ISOTYPE. United States: Washington, Mason Co., *C.V. Piper 25* (CANM 197574).
= *B. frigidum* (C. Müll) Besch.

Braunia novae-seelandiae C. Müll. & Beck., Trans. New Zealand Inst. 26: 275. 1894.
ISOTYPE? New Zealand: Canterbury, Selwyn Gorge, *T.W.N. Beckett 417* (CANM 159249).
= *Hedwigidium integrifolium* (P. Beauv.) Dix.

Braunia plicata var. **canescens** Card., Rev. Bryol. 38: 38. 1911.
SYNTYPE. Mexico: Hidalgo, Cuyamaloya, PRINGLE, PLANTAE MEXICANAE 10627 (CANM 197384).

Bryhnia hultenii Bartr. *ex* Grout, Moss Flora N. Amer. 3: 264. 1934.
ISOTYPE. United States: Alaska, Kodiak I., Kodiak, *E. Hulten 5135* (CANM 197386).

Bryum alvarense Arn. & Medelius, Bot. Not. 1921: 27. 1921.
ISOTYPE. Sweden: Öland, Stenasa, Ebbelunda, *S. Medelius*, 11 June 1920 (CANM 144874).
= *B. turbinatum* (Hedw.) Turn.

Bryum argenteum var. **brachycarpum** Card., Rev. Bryol. 36: 112. 1909.
SYNTYPE. Mexico: Jalisco, Sierra de San Esteban, near Guadalajara, PRINGLE, PLANTAE MEXICANAE 10566 (CANM 197388).

Bryum brachycarpum Bartr., Farlowia 2: 314. 1946.
ISOTYPE? Chile: Fuegia media, Estancia La Marina, *H. Roivainen*, 11 January 1929 (CANM 111689).

Bryum capillare var. **pulvinatum** Warnst. *in* Bauer, Musci Eur. Exs. 23: n. 1119. 1915.
ISOTYPE. Germany: Brandenburg, Neuruppin, *C. Warnstorf*, BAUER, MUSCI EUR. EXS. 1119 (CANM 143150).

Bryum insolitum Card., Rev. Bryol. 36: 112. 1909.
ISOTYPE. Mexico: Jalisco, near Guadalajara, Rio Blanco, PRINGLE, PLANTAE MEXICANAE 10562 (CANM 197393).

Bryum knowltonii Barnes, Bot. Gaz. 14: 44. 1889.
ISOTYPE. Canada: Newfoundland, Funk I., *W. Palmer*, 23 July 1887 (CANM 197394).

Bryum laxulum Card., Rev. Bryol. 36: 113. 1909.
SYNTYPE. Mexico: Hidalgo, near Honey Station, PRINGLE, PLANTAE MEXICANAE 10655 (CANM 197395).

Bryum lucidum Britt., Bull. Torrey Bot. Cl. 18: 53. 1891.
ISOTYPE. United States: Idaho, Kootnai Co., near Rathdrum, *J.B. Leiberg*, May 1889 (CANM 197396).
PARATYPE. United States: Idaho, Kootnai Co., Traille River Pass, *J.B.Leiberg*, 18 October 1889 (CANM 197397).
= *Roellia roellii* (Broth.) Andr. *in* Grout

Bryum mayebarae Nog., J. Jap. Bot. 26: 273. 1951.
ISOTYPE. Japan: Kyushu, Kumamoto, Kuma, Shimonatsukuma, *K. Mayebara* NOGUCHI & HATTORI, MUSCI JAP. 166 (CANM 197398).
= *B. algovicum* Sendtn. *ex* C. Müll.

Bryum microbalanum Card., Rev. Bryol. 36: 112. 1909.
SYNTYPE. Mexico: Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10662 (CANM 197399).

Bryum oblongum Lindb., Bot. Not. 1882: 26. 1882.
ISOTYPE. Finland: Helsingfors, Fredriksberg, *S.O. Lindberg*, October 1881 (CANM 143927).

Bryum pendulum var. **nevadense** Card. & Thér., Bot. Gaz. 37: 370. 1904.
ISOTYPE. United States: Nevada, Ormsby Co., King's Canyon, near Carson, *C.F. Baker*, HOLZINGER, MUSCI ACRO. BOR. AMER. 171 (CANM 197400).

Bryum percrispifolium Bartr., Rev. Bryol. Lich. 30: 191. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Sau Valley, Labalam Village, N of Kompiam, *R.G. Robbins 2994* (CANM 197401).

Bryum polycladum Card. & Thér., Bot. Gaz. 37: 370. 1904.
ISOTYPE. United States: Nevada, Douglas Co., Spooner, *C.F. Baker*, HOLZINGER, MUSCI ACRO. BOR. AMER. 172 (CANM 197402).
= *B. lisae* var. *cuspidatum* (B.S.G.) Marg.

Bryum punjabense Bartr.,Rev. Bryol. Lich. 29: 169. 1960.
ISOTYPE. India: Bashahr State, Punjab, Majoli, *W. Koelz 7454* (CANM 256256).

Bryum reedii Robins., Bryologist 69: 107. 1966.
PARATYPE. United States: Maryland, Baltimore Co., Soldiers Delight, Red Run, Dolfield Road, *H. Robinson & C.F. Reed*, 24 Juiy 1965 (CANM 212112).

Bryum serotinum Lindb., Musci Scand. 17. 1879.
ISOTYPE. Finland: Helsingfors, Fredriksberg, *S.O. Lindberg*, 9 October 1881 (CANM 197403).

Bryum torquatum Mohamad, J. Bryol. 10: 454. 1979.
ISOTYPE. Jamaica: Bellvue House, Port Royal Range near Kingston, *R.G. Robbins 7* (CANM 144799).

Bryum tricolor Card., Rev. Bryol. 38: 34. 1911.
ISOTYPE. Mexico: Ixtaccihuatl, *P.A. Purpus 3718* (CANM 197404).

Bryum vellei Card. & P. de la Varde, Rev. Bryol. 50: 22. 1923.
SYNTYPE. India: Madras State, Madura Dist., Palni Hills, Kodaikanal and surrounding region, *G. Foreau & G. Roiné*, 1912, FOREAU, MUSCI MADURENSES INDIAE MERIDIONALIS EXSICCATI (CANM 257338).

Bryum ventricosum var. **brevifolium** Mach. *in* Bauer, Musci Eur. Amer. Exs. 39: n. 1926. 1927.
ISOTYPE. Portugal: Paredes de Coura, *A. Machado*, BAUER, MUSCI EUR. AMER. EXS. 1926 (CANM 144507).
= *B. pseudotriquetrum* var. *brevifolium* (Mach.) Podp.

Bryum wabagense Bartr., Rev. Bryol. Lich. 30: 191. 1962.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Ambum R. valley northwest of Wabag, *R.G. Robbins* 3021 (CANM 197405).

Callicostella aiomensis Bartr., Brittonia 13: 373. 1961.
ISOTYPE. New Guinea: Schrader Range, Mt. Aiome, *R.G. Robbins 1425* (CANM 197406).

Callicostella leoni Thér., Mem. Soc. Cubana Hist. Nat. 14: 367. 1940.
SYNTYPE. Cuba: Oriente Prov., Bayate, between Miranda and Sab. Resuena, *E.L. Elkman 2615* (CANM 197636).

Calliergon sarmentosum var. **flagellaris** Karcz., Polskie Towarzystwo Botaniczne Monographiae Botanicae 34: 141. 1972.
ISOTYPE. United States: Alaska, Thoroughfare R. to Glacier Creek, base of Mt. Eielson, *W.A. Weber & L.A. Viereck 10165* (CANM 176603).

Calliergonella conardii Lawt., Moss Flora Pacific Northwest 272. 1971.
ISOTYPE. United States: Wyoming, Yellowstone Park, Lost Lake, *E. Lawton 1821* (CANM 129836).
= *Fontinalis hypnoides* C.J. Hartm.

Calymperes bartramii Reese, Bryologist 64: 136. 1961.
HOLOTYPE. Columbia: Cachivera Palito, *R.E. Schultes & I. Cabrera 13199* (CANM 197407).

Calymperes nashii Williams, Bull. Torrey Bot. Cl. 47: 391. 1920.
ISOTYPE. Haiti: Bayeux, near Port Margot, *G.V. Nash 51* (CANM 197408).

Campylopus angusti-alatus Thér., Smiths. Misc. Coll. 85(4): 2. 1931.
ISOTYPE. Mexico: Valle de México, Rio Frio, *Fre. Amable 1724* (CANM 197410).

Campylopus arduennae Lib., Pl. Crypt. Arduenn. n. 106. 1832.
ISOTYPE. France: M.A. LIBERT, PL. CRYPT. ARDUENN. 106 (CANM 225321).
= *C. flexuosus* (Hedw.) Brid.

Campylopus bartletti Bartr., J. Washington Acad. Sci. 22: 477. 1932.
ISOTYPE. British Honduras: El Cayo Dist., Duck Run, *H.H. Bartlett 12973* (CANM 197411).

Campylopus bermudianus Williams *in* Britt., J. New York Bot. Gard. 13: 193. 1913.
ISOTYPE. Bermuda: Paget Marsh, *S. Brown 651* (CANM 197412).

Campylopus brittonae Williams, N. Amer. Fl. 15: 141. 1913.
ISOTYPE. Jamaica: slopes of Sir John and Summit, *E.G. Britton 1167* (CANM 197415).

Campylopus carolinae Grout, Moss Fl. N. Amer. 1: 249. 1939.
ISOTYPE. United States: North Carolina, Brunswick Co., Southport, *L.E. Anderson & A.W. Evans 6180* (CANM 197413).

Campylopus hondurensis Bartr., Field Mus. Nat. Hist. Bot. 4: 351. 1929.
ISOTYPE. Honduras: Dept. Comayagua, El Achote, *P.C. Standley 56157a* (CANM 197416).
= *C. flexuosus* (Hedw.) Brid.

Campylopus mexicanus Thér., Smiths. Misc. Coll. 78(2): 7. 1926.
ISOTYPE. Mexico: Michoacan, Campanario, vicinity of Morelia, *Bro. Arsène 7576* (CANM 197417).

Campylopus robbinsii Bartr., Rev. Bryol. Lich. 30: 187. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, near Tabanaka, Middle Waga River Valley, *R.G. Robbins 3304* (CANM 197419).

Camplyopus roellii Ren. & Card., Bull. Soc. R. Bot. Belg. 38: 9. 1899.
ISOTYPE. Costa Rica: Juan Vinas, *Sarg* (CANM 197420).

Campylopus saint-pierrei Thér., Smiths Misc. Coll. 85(4): 3. 1931.
ISOTYPE. Mexico: Hidalgo, El Chico, *M. Saint-Pierre (Bro. Amable) 1589* (CANM 197421).

Campylopus saxatilis Williams, N. Amer. Fl. 15: 137. 1913.
ISOTYPE. Jamaica: near Cinchona, *W. Harris 11143* (CANM 197422).

Campylopus standleyi Bartr., Contr. U.S. Nat. Herb. 26: 59. 1928.
ISOTYPE. Costa Rica: Prov. San José, Cerro de las Vueltas, *P.C. Standley & J. Valerio 43939* (CANM 197423).
= *C. jamesonii* (Hook.) Jaeg.

Campylopus underwoodii Williams, N. Amer. Fl. 15: 142. 1913.
ISOTYPE. Jamaica: summit of Blue Mt. Peak, *L.M. Underwood*, 20-21 April 1903 (CANM 197424); *L.M. Underwood* 2539 (CANM 197425).

Campylopus wabagensis Bartr., Rev. Bryol. Lich. 30: 187. 1961.
PARATYPES. New Guinea: Western Highlands Dist., Wabag area, ranges S of Wabag, Lai Valley, *R.G. Robbins 2852* (CANM 197426); Western Highlands Dist., Wabag area, track to Sugarloaf Mts., from Tale R., Tsak Valley, *R.G. Robbins 2779* (CANM 197427); Western Highlands Dist., Wabag area, Sugarloaf Mt. area, S of Wapenamanda, *R.G. Robbins 2821* (CANM 197428).

Ceratodon dimorphus Philib., Rev. Bryol. 15: 28. 1888.
ISOTYPE? France(?): sur le Col du Simplon (Valais), *H. Philibert*, July 1887 (CANM 113600).
= *C. purpureus* (Hedw.) Brid.

Chaetomitrium integrifolium Bartr., Brittonia 13: 375. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram, Screw R. gorge near Maprik, *R.G. Robbins 1984* (CANM 197429).

Chaetomitrium madangense Bartr., Brittonia 13: 375. 1961.
ISOTYPE. New Guinea: Madang Dist., Lower Ramu-Atitau, foothills of Adelbert Range near Josephstaal, *R.G. Robbins 1658* (CANM 197430).

Chaetomitrium pseudopapillifolium Bartr., Brittonia 13: 375. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, Angoram Hills near Tring Village, *R.G. Robbins 2172* (CANM 197431).

Chaetomitrium robbinsii Bart., Brittonia 13: 376. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, Prince Alexander Range near Nagipam Village (Maprik), *R.G. Robbins 2006* (CANM 197432).

Chaetomitrium smithii Bartr., J. Washington Acad. Sci. 46: 395. 1956.
ISOTYPE. Fiji: Viti Levu, Tailevu, hills E of Wainimbuka R., in vicinity of Ndakuivuna, *A.C. Smith 7172* (CANM 197433).

Cheilothela novae-seelandiae Broth., Oefv. Finsk.-Vet. Soc. Foerh. 40: 164. 1898.
SYNTYPE. New Zealand: Blue Mountains, Otago(?), *D. Petrie 664* (CANM 197434).
= *C. chilensis* (Mont.) Broth.

Chrysohypnum arcticum Williams, Rep. Canad. Arct. Exp. 1913-18, 4(E): 10. 1921.
ISOTYPE. Canada: Northwest Territories, Pihumalerksiak I., Cockburn Point, *F. Johansen*, 15 July 1916 (CANM 199409).
= *Campylium stellatum* var. *arcticum* (Williams) Sav.-Ljub.

Conomitrium hallianum Sull. & Lesq. *in* Aust., Musci Appal. n. 108b. 1870.
ISOTYPE. United States: Illinois, *E. Hall*; New Jersey, Little Falls and Ogdensburg, *C.F. Austin*, AUSTIN, MUSCI APPAL. 108b (CANM 197435).
= *Fissidens fontanus* (B.-Pyl.) Steud.

Coscinodon renauldi Card., Bot. Gaz. 15: 41. 1890.
ISOLECTOTYPE. United States: Kansas, Salina, *J. Henry*, RENAULD & CARDOT, MUSCI AMER. SEPT. 34 (CANM 133683).
= *C. raui* (Aust.) Lesq. & James

Cratoneuron papillosum Grout, Moss Fl. N. Amer. 3: 78. 1931.
ISOTYPE. United States: Montana, Columbia Falls, *R.S. Williams*, GROUT, N. AMER. MUSCI PLEUR. SUPPL. 26 (CANM 197436).
= *C. williamsii* Grout

Crossidium aberrans Holz. & Bartr., Bryologist 27: 4. 1924.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., Soldier Canyon, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 66 (CANM 197437; 197438; 197439).

Crossidium desertorum Holz. & Bartr., Bryologist 26: 72. 1923.
ISOTYPE. United States: Arizona, Pima Co., Tucson Mts., *E.B. Bartram*, HOLZINGER, MUSCI ARC. BOR. AMER. 483 (CANM 129397; 197440).
PARATYPE. United States: Arizona, Pima Co., Tucson Mts., *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 67 (CANM 129398).

Crossidium seriatum Crum & Steere, Southw. Natural. 3: 117. 1959.
ISOTYPE. Mexico, Baja California, Cedros I., E side at north end, perhaps 4 mi. S of point, *W.C. Steere 17533c* (CANM 197441).

Crossidium succulentum Holz. & Bartr., Bryologist 26: 69. 1923.
ISOTYPE. United States: Arizona, Pima Co., Tucson Mts., *E.B. Bartram*, HOLZINGER, MUSCI ACRO. BOR. AMER. 484 (CANM 129412).
PARATYPE. United States: Arizona, Pima Co., N of Rillito Creek, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 65 (CANM 197442).
= *C. squamigerum* var. *pottioideum* (De Not.) Mönk.

Crossomitrium acuminatum Bartr., Rev. Bryol. Lich. 22: 157. 1953.
ISOTYPE. Panama: Canal Zone, westerly arm of Quebrada Salamanca, *J.A. Steyermark & P.H. Allen*, 16 December 1934 (CANM 197443).

Crumia deciduidentata Sharp & Iwats., J. Hattori Bot. Lab. 32: 95. 1969.
ISOTYPE. United States: Alaska, across bay from Port Moller, *A.J. & E. Sharp & Z. Iwatsuki A459* (CANM 111729).

Cryphaea floridensis Crum, Bryologist 73: 381. 1970.
HOLOTYPE. United States: Florida, Collier Co., Collier-Seminole State Park, Royal Palm Hammock, *L.E. Anderson & H. Crum 13450* (CANM 197444).
= *C. filiformis* (Hedw.) Brid.

Cryphaea funalis C. Müll., Hedwigia 37: 241. 1898.
ISOTYPE. Puerto Rico: Cayey, in Quebra Morillos, *P. Sintenis*, October 1885 (CANM 197445).

Cryphaea pilifera Mitt., J. Linn. Soc. Bot. 12: 412. 1869.
SYNTYPE. Columbia: Novae-Granatenses, Andes Bogotenses, in sylvis prope Bogota, *J. Weir 183*, Reliquiae of V.F. Brotherus No. R 11719 (CANM 256649).

Cyclodictyon humectatum Card., Rev. Bryol. 37: 50. 1910.
ISOTYPE. Mexico: Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10528 (CANM 197446).

Cylindrothecium amplirete Sull., Proc. Amer. Acad. Arts. Sci. 5: 284. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 72 (CANM 197448).
= *Lepidopilum amplirete* (Sull.) Mitt.

Dactylhymenium pringlei Card., Rev. Bryol. 36: 72. 1909.
ISOTYPE. Mexico: Chihuahua, Chihuahua, PRINGLE, PLANTAE MEXICANAE 4 (CANM 197449).
= *Didymodon tophaceus* (Brid.) Lisa

Dawsonia robbinsii Bartr., Rev. Bryol. Lich. 30: 207. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Sau Valley along road to Kompiam, N of Wabag, *R.C. Robbins 2850* (CANM 208116).

Decodon brasiliensis C. Müll. *in* Broth., Act. Soc. Sci. Fenn. 19(5): 20. 1891.
ISOTYPE. Brazil: prov. Minas Geraes, Sitio, *E. Wainio*, 1885 (CANM 197677).
= *Rhachithecium perpusillum* (Thwait. & Mitt.) Broth.

Desmatodon ellesmerensis Brass., Bryologist 74: 208. 1971.
HOLOTYPE. Canada: Northwest Territories, Ellesmere I., vicinity of Alert weather station, *G.R. Brassard 4467* (CANM 205544).
= *Pseudocrossidium revolutum* (Brid. *in* Schrad.) Zander

Desmatodon porteri James *ex* Aust., Musci Appal. n. 123. 1870.
ISOTYPE. United States: Pennsylvania, Easton, "College Hill", *T.C. Porter*; New York, Niagara Falls, *G.W. Clinton*, AUSTIN, MUSCI APPAL. 123 (CANM 197452).

Dicranella hutchinsonii Krajina, Bryologist 53: 153. 1950.
ISOTYPE. Canada: British Columbia, Vancouver, University of B.C. campus, *V. Krajina*, 26 September 1949 (CANM 197453).
= *D. rufescens* (With.) Schimp.

Dicranella pseudolongirostris Card., Rev. Bryol. 36: 68. 1909.
ISOTYPE. Mexico: Morelos, Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10661 (CANM 197454: 197455).
= *Microdus longirostris* (Schwaegr.) Schimp. *in* Besch.

Dicranella sharpii Bartr., Bryologist 50: 202. 1947.
ISOTYPE. Guatemala: El Quiché, below Nebaj, *A.J. Sharp 2448* (CANM 197456).

Dicranella sphaerocarpa Card., Rev. Bryol. 36: 69. 1909.
ISOTYPE. Mexico: Jalisco, Etzatlan, PRINGLE, PLANTAE MEXICANAE 10614 (CANM 197457).
= *Microdus sphaerocarpus* (Card.) Broth.

Dicranella squarrosa f. fluitans Grout, Moss Fl. N. Amer. 1: 56. 1936.
ISOTYPE. Canada: Nova Scotia, Cape Breton I., Warren Lake, near Ingonish, *G.E. Nichols*, GROUT, N. AMER. MUSCI PLEUR. 458 (CANM 114788).
= *D. palustris* (Dicks.) Crundw. *ex* Warb.

Dicranoloma phillipsiae Bartr., Philipp. J. Sci. 68: 53. 1939.
ISOTYPE. Philippines: Bukidnon, forest near Impalutao, *L.H. Phillips 26* (CANM 197459).

Dicranum fuscescens var. **eatoni** Ren. & Card., Bull. Herb. Boiss. 4: 15. 1896.
ISOTYPE. United States: New Hampshire, Mt. Washington, *D.C. Eaton*, RENAULD & CARDOT, MUSCI AMER. SEPT. 206 (CANM 197463).
= *D. fuscescens* Turn.

Dicranum fuscescens f. pallidiseta Bail. *ex* Holz., Musci Acro. Bor. Amer. Eur. n. 653. 1929.
ISOTYPE. United States: Washington, Kittitas Co., bank of Wolf Creek, on Mt. Margaret, *J.W. Bailey*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 653 (CANM 197462).
= *D. pallidisetum* (Bail. *ex* Holz.) Irel.

Dicranum julaceum Hook. & Wils. *in* Drumm., Musci Bor. Amer. n. 100. 1828.
ISOTYPE. Canada: British Columbia, banks of Portage R., near the Columbia R., DRUMMOND, MUSCI BOR. AMER. 100 (CANM 197464).
= *Aongstroemia longipes* (Somm.) B.S.G.

Dicranum mariae Holz. *ex* Ren. & Card., Bull. Herb. Boiss. 4: 15. 1896.
ISOTYPE. United States: Colorado, Boulder Co., Springdale, *M. Holzinger*, RENAULD & CARDOT, MUSCI AMER. SEPT. 205 (CANM 197465).
= *D. rhabdocarpum* Sull.

Dicranum microcarpon Hook. *in* Drumm., Musci Bor. Amer. n. 105. 1828.
ISOTYPE. Canada: Alberta(?), near the Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 105 (CANM 197461).
= *Oncophorus wahlenbergii* Brid.

Dicranum ontariense Peterson, Can. J. Bot. 55: 988. 1977.
ISOLECTOTYPE. Canada: DRUMMOND, MUSCI BOR. AMER. 86 (CANM 119569).

Dicranum richardsoni Hook. *in* Drumm., Musci Bor. Amer. n. 104. 1828.
ISOTYPE. Canada: across Canada to Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 104 (CANM 197466).
= *Oncophorus wahlenbergii* Brid.

Dicranum scoparium f. diversifolia Bauer, Musci Eur. Amer. 41: n. 2005a. 1928.
ISOTYPE. Czechoslovakia: Gau Kaschau, Snina, *E. Bauer*, BAUER, MUSCI EUR. AMER. 2005a (CANM 197467).

Dicranum sumichrasti var. **viride** Card., Rev. Bryol. 36: 69. 1909.
ISOTYPE. Mexico: Puebla, Honey Station, PRINGLE, PLANTAE MEXICANAE 15119 (CANM 121767).

Didymodon alticaulis Bartr., Bryologist 50: 204. 1947.
ISOTYPE. Guatemala: El Quiché, between Chajul and Cotzal, *A.J. Sharp 5286* (CANM 197468).

Didymodon austriacus Schiffn. & Baumg., Oesterr. Bot. Zeitschr. 56: 156. 1906.
ISOTYPE? Austria: Nieder-Oesterreich, Lössboscjungen in Weinbergen oberhalb Stein/Donau, *V.F. Schiffner*, 4 May 1902 (CANM 122607).
= *D. cordatus* ssp. *austriacus* (Schiffn. & Baumg.) Wijk & Marg.

Didymodon columbianus Herm. & Lawt., Bull. Torrey Bot. Cl. 95: 388. 1968.
ISOTYPE. United States: Oregon, Wasco Co., 6 mi. NE of The Dalles, south bank of Columbia R. along US 30, *F.J. Hermann 18751* (CANM 197451).
= *Bryoerythrophyllum columbianum* (Herm. & Lawt.) Zander

Didymodon diversifolius Aust., Musci Appal. n. 115. 1870.
ISOTYPE. United States: New York, Herkimer Co., near Newville; also Niagara Falls, *S.T. Olney*, AUSTIN, MUSCI APPAL. 115 (CANM 197469).
= *D. tophaceus* (Brid.) Lisa.

Didymodon fragilis Hook. & Wils. *in* Drumm., Musci Bor. Amer. n. 127. 1828.
ISOTYPE. Canada: Alberta(?), margins of alpine lakes, DRUMMOND, MUSCI BOR. AMER. 127 (CANM 197470).
= *Tortella fragilis* (Hook. & Wils.) Limpr.

Didymodon integrifolius var. **pseudentalus** Thér., Rev. Bryol. n. ser. 3: 43. 1930.
ISOTYPE. Uganda: Behungi Escarpment, *D.H. Linder 2598* (CANM 256140).

Didymodon luzonensis Bartr., Philipp. J. Sci. 68: 116. 1939.
ISOTYPE. Philippines: Luzon, Mountain Prov., Mt. Santo Tomas, *H.H. Bartlett 13304* (CANM 197471).

Didymodon mexicanus var. **subulatus** Thér. & Bartr., Bryologist 29: 1. 1926.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., Window Trail, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 174 (CANM 197472).

Didymodon oblongifolius Hook. *in* Drumm., Musci Bor. Amer. n. 114. 1828.
ISOTYPE. Canada: Alberta(?), Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 114 (CANM 197473).
= *Desmatodon obtusifolius* (Schwaegr.) Schimp.

Didymodon planifolius Froehl., Ann. Naturh. Mus. Wien 57: 38. 1950.
ISOTYPE. Iran: Luristan, Bisheh, 50 km from Khorramabad, *K.H. & F. Rechinger 7407* (CANM 222631).
= *D. planotophaceus* Froehl.

Diploneuron connivens Bartr., J. Washington Acad. Sci. 26: 11. 1936.
ISOTYPE. Jamaica: St. Ann's, Lumsden, *C.R. Orcutt 6087* (CANM 197474).

Ditrichum henryi Crum & Anders., J. Mitchell Sci. Soc. 72: 289. 1956.
ISOTYPE. United States: North Carolina, Jackson Co., Upper Falls, Whitewater R., *L.E. Anderson & H. Wright 10014* (CANM 197477).
= *D. rhynchostegium* Kindb.

Ditrichum roivanenii Bartr. & Roiv., Ann. Bot. Soc. Penn. Vanamo 9: 19. 1937.
ISOTYPE. Argentina: Neugiana, Brazo Aino, Fjordo Finlandia, *H. Roivainen*, 1 March 1929 (CANM 11!690).

Ditrichum tortuloides Grout, Bryologist 30: 4. 1927.
ISOTYPE. United States: Vermont, Newfane, Baker's Brook, *A.J. Grout*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 638 (CANM 197478).
= *D. ambiguum* Best ?

Drepanocladus crassicostatus Janssens, Bryologist 86: 45. 1983.
ISOTYPE. Canada: British Columbia, Crown Lake, near Pavilion Lake, Marble Canyon, *W.B. Schofield 38890* (CANM 265039).

Drepanocladus exannulatus var. **polaris** Bryhn, Forh. Vid. Selsk. Christiania 1908(5): 23. 1908.
ISOTYPE? Canada: Northwest Territories, Fort Conger, *R.E. Peary*, 1902 (CANM 197479).

Drepanocladus exannulatus f. **pseudotrichophyllus** Herm., Bryologist 80: 340. 1977.
ISOTYPE. United States: Colorado, Lake Co., Sawatch Mts., Independence Pass, *F.J. Hermann 24148* (CANM 212140).

Drepanocladus intermedius var. **fallax** Loeske *in* Bauer, Musci Eur. Amer. Exs. Sched. Bemerk ser. 41: n. 2046. 1929.
ISOTYPE. Hungary: Komitat Pest, Rand der Ung. Tiefebene (Alföld), bei Veresegyhaz, *A. Boros*, BAUER, MUSCI EUR. AMER. EXS. 2046 (CANM 174353).

Drepanophyllum duidense Williams, Bull. Torrey Bot. Cl. 58: 501. 1931.
ISOTYPE. Venezuela: Foothills Camp, slopes of Mount Duida, *G.H.H. Tate 222* (CANM 147895).

Drummondia clavellata Hook. *in* Drumm., Musci Bor. Amer. n. 62. 1828.
ISOTYPE. Canada: Ontario (Upper Canada), DRUMMOND, MUSCI BOR. AMER. 62 (CANM 197480).
= *D. prorepens* (Hedw.) Britt.

Ectropothecium campanulatum Mitt., J. Linn. Soc. Bot. 12: 512. 1869.
ISOTYPE. Colombia: Novae-Granatenses, Andes Bogotenses, prope Guaduas secus viam ad Honda ducentem, *J. Weir 191*, Reliquiae of V.F. Brotherus No. R 11687 (CANM 256650).

Ectropothecium perlatifolium Bartr., Rev. Bryol. Lich. 30: 205. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, forest track into Porgera Valley, 20 mi. W of Laiagam patrol post, *R.G. Robbins 3363* (CANM 197481).

Ectropothecium robbinsii Bartr., Brittonia 13: 379. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, Prince Alexander Ranges, N of Maprik, *R.G. Robbins 2021* (CANM 197482).

Encalypta vittiana Horton, Bryologist 82: 369. 1979.
PARATYPE. Canada: Yukon Territory, Bonnet Plume Range, slopes above NW shore of Pinguicula Lake, *D.G. Horton 5794* (CANM 262452).

Endotrichella robbinsii Bartr., Rev. Bryol. Lich. 30: 197. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, track from Upper Ambum valley to Sirunki, *R.G. Robbins 3145* (CANM 197491).

Entodon calycinus Card., Bull. Soc. Bot. Genève ser. 2, 3: 285. 1911.
ISOTYPE. Japan: Kyushyu, Sakurajima, *U. Faurie 1309* (CANM 197483).

Entodon dependens Sakurai, Bot. Mag. Tokyo 48: 394. 1934
ISOTYPE. Japan: Kyushyu, Osumi Prov., Mt. Kurinodake, *Y. Doi 1124* (CANM 197484).
= *E. calycinus* Card.

Entodon erythropus var. **mexicanus** Card., Rev. Bryol. 37: 11. 1910.
SYNTYPES. Mexico: Morelos, Parque, PRINGLE, PLANTAE MEXICANAE 10502 (CANM 197485); Hidalgo, Honey Station, PRINGLE, PLANTAE MEXICANAE 10652 (CANM 197486).

Entodon seductrix var. **tennis** Grout, N. Amer. Musci Pleur. n. 186. 1904.
ISOTYPE. United States: Minnesota, Winona Co., Queen's Bluff, *J.M. Holzinger*, GROUT, N. AMER. MUSCI PLEUR. 186 (CANM 197488).
= *E. seductrix* (Hedw.) C. Müll.

Entosthodon bartramii Grout, Moss Fl. N. Amer. 2: 79. 1935.
ISOTYPE. United States: Arizona, Pima Co., SW of San Xavier Mission, *E.B. Bartram*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 639 (as *Funaria bolanderi* (Lesq.) Holz.) (CANM 138247).
= *E. sonorae* (Card.) Steere

Entosthodon drummondii var. **obtusifolius** Holz., Musci Acro. Bor. Amer. n. 219. 1906.
ISOTYPE. United States: Georgia, Thomasville, back of Wyman Jones Estate, *E.B. Taylor*, HOLZINGER, MUSCI ACRO. BOR. AMER. 219 (CANM 197490).
= *E. drummondii* Sull. *in* Sull. & Lesq.

Entosthodon neoscoticus M.S. Brown, Bryologist 35: 17. 1932.
ISOTYPE. Canada: Nova Scotia, Halifax Co., Peggy's Cove, *M.S. Brown 485* (CANM 209228).
= *Desmatodon randii* (Kenn.) Laz.

Ephemerum papillosum Aust., Musci Appal. n. 50. 1870.
ISOTYPE. United States: New Jersey, Palisades, AUSTIN, MUSCI APPAL. 50 (CANM 137911).
= *E. crassinervium* (Schwaegr.) Hampe

Ephemerum spinulosum var. **texanum** Grout, Moss Fl. N. Amer. 2: 70. 1935.
ISOTYPE. United States: Texas, near Bastrop, *F. McAllister*, GROUT, N. AMER. MUSCI PERF. 275 (CANM 137909).
= *E. crassinervium* var. *texanum* (Grout) Bryan & Anders.

Ephemerum synoicum James, Trans. Amer. Phil. Soc. 9: 106. 1865.
ISOTYPE. United States: New Jersey, near Camden; Pennsylvania, Philadelphia, AUSTIN, MUSCI APPAL. 46 (CANM 138005).
= *Micromitrium synoicum* (James) Aust. *ex* Sull.

Erpodium opuntiae Card., Rev. Bryol. 37: 6. 1910.
ISOTYPE. Mexico: Oaxaca, valley near Oaxaca, PRINGLE, PLANTAE MEXICANAE 31a (CANM 197493).

Erpodium pringlei Britt., Bull. Torrey Bot. Cl. 32: 268. 1905.
ISOTYPE. Mexico: Jalisco, Guadalajara, PRINGLE, PLANTAE MEXICANAE 710 (CANM 197494).

Erythrodontium densum var. **brevifolium** Card., Rev. Bryol. 37: 12. 1910.
ISOTYPE. Mexico: Michoacan, Corn Station, PRINGLE, PLANTAE MEXICANAE 10438 (CANM 197495).
= *Bryosedgwickia densa* var. *brevifolia* (Card.) Biz. & P. de la Varde.

Eucamptodon robbinsii Bartr., Brittonia 11: 88. 1959.
ISOTYPE. New Guinea: Kainantu subdist., Eastern Highlands near Barola on road to Kainantu, *R.G. Robbins 935* (CANM 197496).

Eurhynchium praelongum var. **californicum** Grout, Bull. Torrey Bot. Cl. 25: 248. 1898.
ISOTYPE. United States: California, *H.N. Bolander 46* (CANM 131553).
= *Stokesiella praelonga* var. *californica* (Grout) Crum

Fabronia bartramii Grout, Bryologist 29: 4. 1926.
ISOTYPE. United States: Arizona, Santa Cruz Co., Harshaw Creek, near Patagonia, *E.B. Bartram*, GROUT, N. AMER. MUSCI PLEUR. 493 (CANM 130221).
= *F. ciliaris* (Brid.) Brid.

Fabronia jamaicensis Lor., Moosstud. 163. 1864.
ISOTYPE. Jamaica: Bethabara, *Wullschlaegel*, 1849 (CANM 197497).

Fabronia octoblepharis var. **americana** Card., Rev. Bryol. 37: 50. 1910.
SYNTYPE. Mexico: Jalisco, Etzatlan, PRINGLE, PLANTAE MEXICANAE 10618 (CANM 197498).

Fabronia patentifolia Card., Rev. Bryol. 37: 49. 1910.
SYNTYPES. Mexico: Jalisco, Alemeda of Guadalajara, PRINGLE, PLANTAE MEXICANAE 10575 (CANM 197499); Hidalgo, Tula, PRINGLE, PLANTAE MEXICANAE 10593 (CANM 197500).
= *F. wrightii* Sull. *in* Sull. & Lesq.

Fabronia wullschlaegelii Lor., Moosstud. 163. 1864.
ISOTYPE. Jamaica: Bethabara, *Wullschlaegel*, 1849 (CANM 197501).

Fissidens amplifolius Dix. & P. de la Varde, Ann. Crypt. Exot. 3: 170. 1930.
ISOTYPE. India: Tinnevelly Dist., Mundanthurai, *G. Foreau 378* (CANM 197502).

Fissidens andersonii Grout, Moss Fl. N. Amer. 1: 252. 1939.
ISOTYPE. United States: North Carolina, Currituck Co., near Currituck, *L.E. Anderson 6505* (CANM 197504).
= *F. bryoides* Hedw.

Fissidens aphelotaxifolius Purs., Bull. Torrey Bot. Cl. 103: 35. 1976.
ISOTYPE. Canada: British Columbia, Queen Charlotte Is., SW Moresby I., Upper Victoria Lake, *W.B. Schofield 30787* (CANM 100561).

Fissidens appalachensis Zander, Bryologist 72: 406. 1969.
ISOTYPE. United States: North Carolina, Caldwell Co., Dixon Creek at juncture with US 221, *R. Zander & S. Pravda 3345* (CANM 110515).

Fissidens arsenei Broth. & Par. *ex* Thér., Smiths. Misc. Coll. 78(2): 8. 1926.
SYNTYPE. Mexico: Puebla, Cerro Guadalupe, *Bro. Arsène 685* (CANM 197503).
= *F. repandus* Wils.

Fissidens carnosus Broth., Rec. Bot. Surv. India 1: 314. 1899.
ISOTYPE. India: Coorg, near Matur, *T.L. Walker 178* (CANM 197506).

Fissidens coorgensis Broth., Rec. Bot. Surv. India 1: 316. 1899.
ISOTYPE. India: Coorg, near Sidapur, *T.L. Walker 267* (CANM 197505).

Fissidens densiretis Sull., Proc. Amer. Acad. Arts Sci. 5: 274. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 15 (CANM 197507; 197508).

Fissidens exiguus Sull., Musci Allegh. n. 44. 1846.
ISOTYPE. United States: Ohio, near Columbus. SULLIVANT, MUSCI ALLEGH. 44 (CANM 268104).

Fissidens guadalupensis Schimp. *ex* Besch., Ann. Sci. Nat. Bot. ser. 6,3: 193. 1876.
ISOTYPE. Guadeloupe: La Rivière Rouge, HUSNOT, PL. DES ANTILLES 134 (CANM 108933).
= *F. similiretis* var. *guadalupensis* (Besch.) Grout

Fissidens imshaugii Crum, Bryologist 63: 93. 1960.
ISOTYPE. Cuba: Pinar de Rio, Alturas de Pizarras, just SW of Hotel San Vicente, *H.A. Imshaug 25253* (CANM 197509).

Fissidens kochii Crum & Anders., Bryologist 64: 345. 1962.
HOLOTYPE. United States: Louisiana, St. Charles Parish, Sarpe Wildlife Refuge, 2 mi. E of Hwy 61, about 15 mi. NW of New Orleans, *L.F. Koch 7857* (CANM 197510).

Fissidens legallei Crum, Bryologist 63: 97. 1960.
HOLOTYPE. Guadeloupe: St. Barthélemy, morne de Petite Saline, Gris-Gris, *C. Le Gallo 674* (CANM 197516).
PARATYPES. Guadeloupe: St. Barthélemy, Chemin de Morne Saline, *C. Le Gallo 377* (CANM 109775); Ile St. Barthélemy, morne de Petite Saline, Gris-Gris, *C. Le Gallo 1034* (CANM 109776); St. Barthélemy, morne de Vittet, *C. Le Gallo 657* (CANM 109777); St. Barthélemy, morne de Vitte, *C. Le Gallo 365* (CANM 109778).

Fissidens longidecurrens Thér., Smiths. Misc. Coll. 78(2): 10. 1926.
SYNTYPE. Mexico: Michoacan, vicinity of Morelia, *Bro. Arsène 4906* (CANM 197511).

Fissidens lutescens Broth., Rec. Bot. Surv. India 1: 315. 1899.
ISOTYPE. India: Coorg, near Verajpet, *T.L. Walker 159* (CANM 197512).

Fissidens manateensis Grout *in* Holz., Musci Acro. Bor. Amer. Fur. 24: n. 590. 1926.
ISOTYPE. United States: Florida, Manatee Co., near road from Oneco to Acadia, *A.J. Grout*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 590 (CANM 197513).
= *F. fontanus* (B.-Pyl.) Steud.

Fissidens michoacanus Thér., Smiths. Misc. Coll. 78(2): 12. 1926.
ISOTYPE. Mexico: Michoacan, vicinity of Morelia, *Bro. Arsène 7892* (CANM 197514).
= *F. leptopus* Card.

Fissidens milobakeri L. Koch, Bryologist 54: 206. 1951.
ISOTYPE. United States: California, San Mateo Co., along the eastern shore of Lake San Andreas, *L.F. Koch 3394* (CANM 197515).

Fissidens neglectus Crum, Bryologist 63: 95. 1960.
ISOTYPE. Cuba: Loma Pelada, *C. Wright*, WRIGHT, THIRD CUBAN COLLECTION 23 (CANM 197517).
PARATYPE. Cuba: Lagunillas, Jurisdicion Pinar del Rio, *C. Wright 51* (CANM 109908).

Fissidens nothotaxifolius Purs. & Hoe, Bryologist 78: 479. 1975.
PARATYPE. United States: Hawaii, Oahu, S. Koolau Mts., Manoa Valley, Manoa Falls Trail 73 along Waihi Stream, *W.J. Hoe*, HOE, BRYOPHYTA HAWAIICA EXSICCATA 54 (CANM 252822).

Fissidens petrophilus Sull., Proc. Amer. Acad. Arts Sci. 5: 276. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 21 (CANM 197518).

Fissidens plurisetus Bartr. *in* Willis, Bryologist 42: 153. 1939.
ISOTYPE. Panama: Canal Zone, Barro Colorado I., *B. Willis 19* (CANM 197519).

Fissidens pringlei Card., Rev. Bryol. 36: 69. 1909.
SYNTYPE. Mexico: Federal Dist., Canada above Contreras Valley of Mexico, PRINGLE, PLANTAE MEXICANAE 10559 (CANM 197520).
= *F. repandus* Wils.

Fissidens reclinatulus var. **brevifolius** Card., Rev. Bryol. 36: 69. 1909.
SYNTYPE. Mexico: Jalisco, Barranca, near Guadalajara, PRINGLE, PLANTAE MEXICANAE 10699 (CANM 197521).
= *F. repandus* Wils.

Fissidens reesei Crum & Anders., Bryologist 63: 35. 1960.
HOLOTYPE. United States: Florida, Glades Co., Palmdale, Tome Lyles Park, Fisheating Creek, *L.E. Anderson & H. Crum 13332* (CANM 197523).
PARATYPES. United States: Florida, Glades Co., S bank of Fisheating Creek by US 27, *W.D. Reese 1329* (CANM 197522); Florida, Polk Co., 9 mi. N of Wauchula, *L.E. Anderson & H. Crum 13488* (CANM 110208).

Floribundaria nipponica Nog., J. Hattori Bot. Lab. 3: 96. 1948.
ISOTYPE. Japan: Oita, Shimoke, Fukayabakei, *A. Noguchi*, NOGUCHI & HATTORI, MUSCI JAP. 77 (CANM 197525).

Fontinalis antipyretica var. **thermalis** Boros *in* Bauer, Musci Eur. Amer. Exs. 39: n. 1930. 1927.
ISOTYPE. Hungary: Transdanubien, Komitat Zala, Tapolca, *A. Boros*, BAUER, MUSCI EUR. AMER. EXS. 1930 (CANM 157002).

Fontinalis microphylla f. **subfalcata** Dietzow & Freiberg *in* Bauer, Musci Eur. Exs. 24: n. 1164. 1915.
ISOTYPE. Germany (Ostpreussen): Allenstein, im Bezeneksee, bei Ganglau, *W. Freiberg*, BAUER, MUSCI EUR. EXS. 1164 (CANM 156904).

Foreauella indica Dix. & P. de la Varde, Arch. Bot. 1(8-9): 175. 1927.
SYNTYPE. India: Madras, Madura Dist., Palni Hills, Lower Palni Hills, along Parappar R., *G. Foreau 395*, MUSCI MADURENSES INDIAE MERIDIONALIS EXSICCATI (CANM 257332).
= *F. orthothecia* (Schwaegr.) Dix. & P. de la Varde

Funaria californica Sull. & Lesq., Musci Bor. Amer. ed. 2: 41, n. 238. 1865.
ISOTYPE. United States: California, montosae, *H. Bolander*, SULLIVANT & LESQUEREUX, MUSCI BOR. AMER. ed. 2: 238 (CANM 197526).
= *Entosthodon californicus* (Sull. & Lesq.) Crum & Anders.

Funaria epipedostegia Card., Rev. Bryol. 36: 109. 1909.
SYNTYPES. Mexico: Jalisco, near Guadalajara, PRINGLE, PLANTAE MEXICANAE 10570 (CANM 197527); Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10660 (CANM 197528).
= *Entosthodon longisetus* Schimp. *in* Besch.

Funaria koelzii Bartr., Rev. Bryol. Lich. 29: 167. 1960.
ISOTYPE. India: Kangra, Punjab, Kulu, *W. Koelz 4924* (CANM 256257).

Garovaglia luzonensis Williams, Bull. New York Bot. Gard. 8: 353. 1914.
SYNTYPE. Philippines: Luzon, Baguio, *R.S. Williams 1878* (CANM 197529).

Garovaglia ulei C. Müll. *ex* Broth., Hedwigia 34: 128. 1895.
SYNTYPE. Brazil: Goyaz, Rio das Almas, *E. Ule 1572* (CANM 197530).
= *Jaegerina scariosa* (Lor.) Arz.

Glyphomitrium daviesii var. **teotonianum** Allorge & P. de la Varde, Rev. Bryol. Lich. 15: 45. 1946.
ISOTYPE. Azores: Flores, Fazenda, *V. & P. Allorge*, V. & P. ALLORGE, BRYOPHYTA AZORICA 85 (CANM 152352).

Grimmia alpicola var. **rivularis** f. **acutifolia** Grout, N. Amer. Musci Per. n. 387. 1940.
ISOTYPE. United States: Colorado, Longs Peak, *W. Kiener*, GROUT, N. AMER. MUSCI PER. 387 (CANM 197531).
= *G. occidentalis* Lawt.

Grimmia arctolimnia Steere, Bryologist 77: 230. 1974.
ISOTYPE. Canada: Northwest Territories, Port Radium, Labine Point, near Eldorado Mine, *W.C. Steere 10429* (CANM 232930).

Grimmia brittoniae Williams, Bull. Torrey Bot. Cl. 27: 316. 1900.
ISOTYPE. United States: Montana, Flathead R., Bad Rock Canyon, *R.S. Williams 223* (CANM 197538).

Grimmia calyptrata Hook. *in* Drumm., Musci Bor. Amer. n. 60. 1828.
ISOTYPE. Canada or United States?: Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 60 (CANM 197534).
= *Coscinodon calyptratus* (Hook.) C. Jens.

Grimmia catalinensis Bartr., Bryologist 27: 62. 1924.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., ravine near top of Mt. Lemon, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 62 (CANM 197536).
= *G. ovalis* (Hedw.) Lindb.

Grimmia hermannii Crum, Mich. Bot. 13: 171. 1974.
ISOTYPE. United States: Michigan, Keweenaw Co., Copper Harbour, *F.J. Hermann 25446* (CANM 226826).

Grimmia hookeri Drumm., Musci Bor. Amer. n. 61. 1828.
ISOTYPE. Canada: Ontario, near Niagara Falls, DRUMMOND, MUSCI BOR. AMER. 61 (CANM 152283).
= *Ptychomitrium incurvum* (Schwaegr.) Spruce

Grimmia montana var. **alnoba** Schmidt *in* Bauer, Musci Eur. Amer. 39: n. 1918. 1927.
ISOTYPE. Germany: Südlicher Schwarzwald, nahe dem Gipfel des Schauinsland, *H. Schmidt*, BAUER, MUSCI EUR. AMER. 1918 (CANM 197539).

Grimmia montana var. **idahensis** Ren. & Card., Bot. Gaz. 30: 18. 1900.
ISOTYPE. United States: Idaho, Lake Pend d'Oreille, *J.B. Leiberg*, RENAULD & CARDOT, MUSCI AMER. SEPT. 289 (CANM 197540).
= *G. montana* B.S.G.

Grimmia moxleyi Williams *in* Holz., Musci Bor. Amer. Eur. 24: n. 600. 1926.
ISOTYPE. United States: California, Los Angeles Co., between Big Rock Creek and Devil's Punch Bowl, *G.L. Moxley 1141*, HOLZINGER, MUSCI BOR. AMER. EUR. 600 (CANM 197541).

Grimmia praetermissa Card., Rev. Bryol. 36: 105. 1909.
SYNTYPE. Mexico: Mexico, in the crater of the volcano of Toluca, PRINGLE, PLANTAE MEXICANAE 26a (CANM 197542).
= *G. ovalis* (Hedw.) Lindb.

Grimmia pulla Card., Rev. Bryol. 36: 106. 1909.
ISOTYPE. Mexico: Hidalgo, near Honey Station, PRINGLE, PLANTAE MEXICANAE 10423 (CANM 197543).

Grimmia santaritae Bartr., Bryologist 27: 60. 1924.
ISOTYPE. United States: Arizona, Santa Cruz Co., Santa Rita Mts., White House Canyon, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 75 (CANM 197544).
= *G. arizonae* Ren. & Card.

Grimmia trichophylla var. **indianensis** Sayre, Bryologist 57: 21. 1954.
ISOTYPE. United States: Indiana, Warren Co., E side of road 2 mi. SW of Rainsville, *W.H. Welch* 9694 (CANM 197537).
= *G. pulvinata* (Hedw.) Sm. *ex* Sm. & Sowerby

Gymnostomum latifolium Hook. *in* Drumm., Musci Bor. Amer. n. 16. 1828.
ISOTYPE. Canada: Saskatchewan, low points of the Saskatchewan R., near Carlton House, DRUMMOND, MUSCI BOR. AMER. 16 (CANM 267893).
= *Physcomitrium hookeri* Hampe

Gymnostomum phascoides Hook. *in* Drumm., Musci Bor. Amer. n. 12. 1828.
ISOTYPE. Canada: Saskatchewan, DRUMMOND, MUSCI BOR. AMER. 12 (CANM 267892).
= *Hymenostomum rostellatum* var. *phascoides* (Hook.) Card.

Gymnostomum pusillum Drumm., Musci Bor. Amer. n. 22. 1828.
ISOTYPE. Canada: Alberta, Rocky Mts., Baptiste R., DRUMMOND, MUSCI BOR. AMER. 22 (CANM 267894).
= *Seligeria donniana* (Sm.) C. Müll.

Gymnostomum uvidum Card., Rev. Bryol. 36: 70. 1909.
SYNTYPE. Mexico: Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10433 (CANM 197548; 197549).
= *G. recurvirostrum* Hedw.

Gyroweisia papillosa Thér., Smiths. Misc. Coll. 85(4): 6. 1931.
SYNTYPE. Mexico: Michoacan, Morelia, *Bro. Arsène 4927* (CANM 197550).

Haplohymenium mithoardi var. **viride** Thér., Anne Crypt. Exot. 5: 179. 1932.
ISOTYPE. China: Fukien Prov., Buong Kang, Yenping, *H.H. Chung B101* (CANM 197552).
= *Heterocladium gracillimum* Nog.

Holomitrium zolocotzianum Crum, Bryologist 55: 55. 1952.
PARATYPE. Mexico: Guerrero, ca. 25 km W of Chilpancingo, *A.J. Sharp 1037a* (CANM 197554).

Homalia pygmaea var. **elongata** Dix. & P. de la Varde, Arch. Bot. Bull. 1(8-9): 182. 1927.
ISOTYPE. India: Madras, Palni Hills, Perumalundai, *G. Foreau*, 5 February 1927 (CANM 197555).

Homalothecium gracillimum Dix. & P. de la Varde, Ann. Crypt. Exot. 3: 180. 1930.
ISOTYPE. India: Kannan Deva Hills, Travancore, *G. Foreau 1887a* (CANM 197556).

Homomallium mexicanum Card., Rev. Bryol. 37: 53. 1910.
SYNTYPE. Mexico: Hidalgo, Cuyamaloya Station, PRINGLE, PLANTAE MEXICANAE 10631 (CANM 197557).

Hookeria cubensis Sull., Proc. Amer. Acad. Arts Sci. 5: 285. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 85 (CANM 165170).
= *Lepidopilum cubense* (Sull.) Mitt.

Hookeria obliquicuspis C. Müll., Bull. Herb. Boiss. 5: 564. 1897.
ISOTYPE. Jamaica: Newhaven Pass, *W. Harris*, 1896 (CANM 197447).

Hookeria pilotrichelloides Broth., Trans. Linn. Soc. Bot. ser. 2: 92. 1901.
ISOTYPE. British Guiana: Mt. Roraima, *J.J. Quelch & F. McConnell 337* (CANM 197567).
= *Neohypnella diversifolia* (Mitt.) Welch & Crum

Hookeria variana Sull., Proc. Amer. Acad. Arts Sci. 5: 285. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 88 (CANM 197558).
= *Cyclodictyon variana* (Sull.) O. Kuntze

Hookeriopsis heteroica Card., Rev. Bryol. 37: 51. 1910.
ISOTYPE. Mexico: Veracruz, Jalapa, PRINGLE, PLANTAE MEXICANAE 15145 (CANM 197560).

Hookeriopsis webateri Crum & Bartr., Bull. Inst. Jamaica Sci. ser. 8: 521. 1958.
HOLOTYPE. Jamaica: Portland Parish, John Crow Mts., 1.5 mi. SW of Ecclesdown, *G.L. Webster 5199* (CANM 197561).
PARATYPES. Jamaica: Portland Parish, 1½-2 mi. SW of Ecclesdown, *G.R. Proctor 9994* (CANM 165161); Portland Parish, E slope of John Crow Mts., 1½-2½ mi. SW of Ecclesdown, *G.R. Proctor 10487* (CANM 165162).

Husnotiella revoluta Card., Rev. Bryol. 36: 71. 1909.
SYNTYPES. Mexico: Morelos, near Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10636 (CANM 197562); Mexico, Lecheria, PRINGLE, PLANTAE MEXICANAE 10523 (CANM 197563).

Hygroamblystegium filum var. **compactum** Bartr., Farlowia 2: 317. 1946.
ISOTYPE. Chile: Fuegia media, Lago Linch, Cerro Chico, *H. Roivainen*, 20 December 1928 (CANM 111691).

Hygroamblystegium irriguum f. **marianopolitana** (Dupret) Grout, Moss Fl. N. Amer. 3: 73. 1931.
ISOTYPE. Canada: Québec, near Montréal, H. Dupret, GROUT, N. AMER. MUSCI PLEUR. 247 (CANM 197317).

Hygrohypnum steerei Sharp, Bryologist 81: 319. 1978.
ISOTYPE. Mexico: Tamaulipas, Rio Sabinas, W of El Encino, *A.J. Sharp & D. Budnik 8752* (CANM 260412).

Hymenostomum castaneum Crum & Steere, Amer. Midland Natural. 60(1): 12. 1958.
ISOTYPE. Haiti: Morne la Hotte, Pic Macayo, *L.R. Holdridge 595* (CANM 197564).

Hymenostomum inoperculatum Crum, Madrono 14: 74. 1957.
HOLOTYPE. United States: California, Santa Clara Co., Stanford University, in front of Sequoia Hall, *W.B. Schofield*, February 1955 (CANM 197565).
= *Weissia inoperculata* (Crum) Crum, Steere & Anders.

Hymenostomum semidisphaena Thér., Smiths. Misc. Coll. 85(1): 5. 1931.
ISOTYPE. Mexico: Michoacan, Morelia, Cerro San Miguel, *Bro. Arsène 5040* (CANM 197566).

Hyophila stomatodonta Card., Rev. Bryol. 36: 76. 1909.
SYNTYPE. Mexico: Jalisco, Barranca de Guadalajara, *C.G. Pringle 15227* (CANM 129311).
= *Dasmatodon stomatodontus* (Card.) Williams

Hyophila walkeri Broth., Rec. Bot. Surv. India 1: 317. 1899.
SYNTYPE. India: Coorg, near Hatur, *T.L. Walker 173* (CANM 197578).

Hypnum aureonitens Bartr., Bryologist 49: 124. 1946.
ISOTYPE. Guatemala: Totonicapan, region of Salvachan, *P.C. Standley 84511* (CANM 197568).

Hypnum bergenense Aust., Musci Appal. n. 391. 1870.
SYNTYPE. United States: New Jersey, Closter; Maine, York Co., AUSTIN, MUSCI APPAL. 391 (CANM 199275).
= *Campylium radicale* (P. Beauv.) Grout

Hypnum chrysophyllum var. **brevifolium** Ren. & Card., Bull. Herb. Boiss. 4: 19. 1896.
ISOTYPE. United States: Washington D.C., Rock Creek, *J.M. Holzinger*, RENAULD & CARDOT, MUSCI AMER. SEPT. 248 (CANM 198966).
= *Campylium chrysophyllum* (Brid.) J. Lange.

Hypnum closteri Aust., Musci Appal. n. 439. 1870.
ISOTYPE. United States: New Jersey, Closter; New York, Shawangunk Mt., AUSTIN, MUSCI APPAL. 439 (CANM 197569).
= *Hygrohypnum closteri* (Aust.) Grout

Hypnum deplanatulum Card., Rev. Bryol. 37: 56. 1910.
ISOTYPE. Mexico: Hidalgo, Honey Station, PRINGLE, PLANTAE MEXICANAE 15292 (CANM 197570).
= *Brotherella deplanatula* (Card.) Broth.

Hypnum erectum Drumm., Musci Bor. Amer. n. 224. 1828.
ISOTYPE. Canada: Ontario (Upper Canada), DRUMMOND, MUSCI BOR. AMER. 224 (CANM 197571).
= *Brachythecium acuminatum* (Hedw.) Aust.

Hypnum holdridgei Crum & Steere, Amer. Midland Natural. 60(1): 46. 1958.
ISOTYPE. Haiti: top of Morne la Selle, *L.R. Holdridge 1890a* (CANM 188317).

Hypnum mirabile Bartr., Bryologist 50: 208. 1947.
ISOTYPE. Guatemala: Huehuetenango, in the first gap above San Juan toward Chemal, *A.J. Sharp 4999* (CANM 197572).
= *H. cupressiforme* var. *lacunosum* Brid.

Hypnum obtusifolium Hook. *in* Drumm., Musci Bor. Amer. n. 193. 1828.
ISOTYPE. Canada: Alberta, Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 193 (CANM 267895).
= *Scleropodium obtusifolium* (Jaeg. & Sauerb.) Kindb. *ex* Mac. & Kindb.

Hypnum orbicularicordatum Ren. & Card., Bull. Herb. Boiss. 4: 19. 1896(1).
ISOTYPE. Canada: Northwest Territories, côte N.O. de la baie d'Hudson, Depot I., *G. Comes*, RENAULD & CARDOT, MUSCI AMER. SEPT. 249 (CANM 197579).
= *Calliergon cordifolium* ssp. *orbicularicordatum* (Ren. & Card.) Grout

Hypnum pulchrum Hook. *in* Drumm., Musci Bor. Amer. n. 180. 1828.
ISOTYPE. Canada: Ontario (Upper Canada), DRUMMOND, MUSCI BOR. AMER. 180 (CANM 197573).
= *Calliciadium haldanianum* (Grev.) Crum

Hypnum vagans Hook. *in* Drumm., Musci Bor. Amer. n. 166. 1828.
ISOTYPE. Canada: British Columbia, Rocky Mts., "La grande Côte", W of the "Height of Land", DRUMMOND, MUSCI BOR. AMER. 166 (CANM 268619).
= *Brachythecium hylotapetum* Hig. & Hig.

Hypnum vaucheri f. **gracile** Ando, J. Sci. Hiroshima Univ. ser. B, Div. 2 (Botany), 16: 14. 1976.
HOLOTYPE. United States: Montana, Flathead Co., Bad Rock Canyon, Shepard Memorial Spring, *F.J. Hermann 20648* (CANM 189469).

Hypnum vaucheri f. tereticaulis
Ando, J. Sci. Hiroshima Univ. ser. B, Div. 2 (Botany), 16: 12. 1976.
HOLOTYPE. Canada: Alberta, Bow River Watershed, Junction Lookout Road crossing of Sheep R., *C.D. Bird & J.L. Glenn 14279* (CANM 189442).

Hypopterygium japonicum Mitt., J. Linn. Soc. Bot. 8: 155. 1864.
ISOTYPE. Japan: Nagasaki, *Oldham* (CANM 197575).

Hypopterygium novae-guineae Bartr., Rev. Bryol. Lich. 30: 201. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Lai-Ambum Divide, track from Upper Ambum Valley to Sirunki, *R.G. Robbins 3142* (CANM 197576).

Hypopterygium pseudotamarisci C. Müll., Linnaea 38: 645. 1874.
SYNTYPE. Mexico: San Cristobal, *C. Mohr*, 1857 (CANM 197580).
= *H. tamariscinum* (Hedw.) Brid.

Isopterygium cylindricarpum Card., Rev. Bryol. 37: 56. 1910.
SYNTYPE. Mexico: Mexico, Amecameca, PRINGLE, PLANTAE MEXICANAE 10606 (CANM 197581).
= *Herzogiella cylindricarpa* (Card.) Iwats.

Isopterygium robusticaule Bartr., Bryologist 49: 122. 1946.
PARATYPE. Guatemala: Dept. Alta Verapaz, Cerro de Aqua Tortuga (Sahacoc), vicinity of Cubilgüitz, *J.A. Steyermark 44584* (CANM 197582).

Jaegerina guatemalensis Bartr., Bryologist 49: 116. 1946.
ISOTYPE. Guatemala: Dept. Izabal, Montana del Mico, between Bananera and "La Presa", *J.A. Steyermark 39202* (CANM 197583).

Leiomela lopezii Griffin, Rev. Bryol. Lich. 43: 383. 1977.
ISOTYPE. Venezuela: Estado Tachira, Distrito Jauregui, paramo El Batallon, above the town of La Grita, *D. Griffin, M. Lopez & L. Ruiz-Teran 461* (CANM 259012).

Leptobryum pyriforme var. **flagellifera** Holz., Musci Acro. Bor. Amer. Eur. n. 617. 1927.
ISOTYPE. Canada: British Columbia, Sandon, Safety Switch, *F.A. MacFadden*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 617 (CANM 197584).
= *L. pyriforme* (Hedw.) Wils.

Leptodictyum riparium f. obtusum Grout, Moss Flora N. Amer. 3: 65. 1931.
ISOTYPE. United States: Connecticut, New Haven, bank of West R., *G.E. Nichols*, GROUT, N. AMER. MUSCI PLEUR. 355 (as *Amblystegium vacillans* Sull. forma) (CANM 171536).
= *L. riparium* var. *obtusum* (Grout) Grout

Leptodontium integrifolium Williams, Bull. Torrey Bot. Cl. 43: 324. 1916.
ISOTYPE. Peru: Ollantaytambo, *Cook & Gilbert 704a* (CANM 197585).

Leptodontium orcuttii Bartr., J. Washington Acad. Sci. 21: 289. 1931.
ISOTYPE. Mexico: Hidalgo, Mineral del Chico, *C.R. Orcutt 6731* (CANM 197586).
= *L. flexifolium* (With.) Hampe

Leptodontium spinosum Williams, Bryologist 33: 73. 1931.
ISOTYPE. Columbia: Dept. Santander, *E.P. Killip & A.C. Smith 17530* (CANM 197587).
= *Zygodon pichinchensis* (Tayl.) Mitt.

Leptodontium *valerianum* Bartr., J. Washington Acad. Sci. 19: 18. 1929.
ISOTYPE. Costa Rica: San José, Piedra Blanca, *J. Valerio 86* (CANM 197588).

Leskea austinii Aust., Musci Appal. n. 268. 1870.
ISOTYPE. United States: New Jersey, Sussex Co., *Austin*; Illinois, Fulton Co., *Wolf*, AUSTIN, MUSCI APPAL. 268 (CANM 197589).
= *Lindbergia brachyptera* (Mitt.) Kindb.

Leskea grandiretis Lindb. *ex* Broth., Act. Soc. Sci. Fenn. 19(12): 97. 1892.
ISOTYPE. U.S.S.R.: Caucasus, Ossetia, Balta ad fl. Terek, *V.F. Brotherus*, 19 May 1881 (CANM 197590).
= *Lindbergia brachyptera* (Mitt.) Kindb.

Leskeodon robbinsii Bartr., Rev. Bryol. Lich. 30: 200. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Lauo Lake area, Yobobos grasslands, Limbo R. Camp, 16 mi. SE of Laiagam, *R.G. Robbins 3191* (CANM 197591).

Leucobryum brevifolium Bartr., Mem. New York Bot. Gard. 10: 4. 1960.
ISOTYPE. Venezuela: Edo. Bolivar, Chimata Massif, *J.A. Steyermark & J.J. Wurdack 726* (CANM 197592).

Leucobryum glaucovirens Card., Rev. Bryol. 36: 69. 1909.
ISOTYPE. Mexico: Veracruz, near Jalapa, PRINGLE, PLANTAE MEXICANAE 10496 (CANM 197593).
= *L. antillarum* Besch.

Leucodon macrosporus Williams, Contr. U.S. Nat. Herb. 16: 23. 1912.
ISOTYPE. Panama: vicinity of Camp Aguacatal, eastern slope of Chiriqui Volcano, *W.R. Maxon 5276* (CANM 197594; 197595).

Leucoloma renauldii Broth., Rec. Bot. Surv. India 1: 313. 1899.
ISOTYPE. India: Coorg, 7 mi. SW of Verajpet, *T.L. Walker 293* (CANM 197596).

Leucoloma walkeri Broth., Rec. Bot. Surv. India 1: 313. 1899.
ISOTYPE. India: South Coorg, *T.L. Walker 294* (CANM 197597).

Leucomium compressum Mitt., J. Linn. Soc. Bot. 12: 502. 1869.
SYNTYPE. San Gabriel: Fl. Negro, *R. Spruce 803b* (CANM 197598).

Macromitrium leptocarpum Broth., Rec. Bot. Surv. India 1: 318. 1899.
SYNTYPE. India: Coorg, near Verajpet, *T.L. Walker 132* (CANM 197600).

Macromitrium morobense Bartr., Bryologist 48: 117. 1945.
ISOTYPE. New Guinea: Morobe Dist., Rawlinson Range, *M.S. Clemens 12448a* (CANM 197601).

Macromitrium palmense Williams, Torreya 14: 25. 1914.
ISOTYPE. Costa Rica: vicinity of La Palma, *W.R. Maxon 480* (CANM 156334).

Macromitrium portoricense Williams, Bryologist 32: 69. 1929.
ISOTYPE. Puerto Rico: Maricao to Monte Alegrillo, *E.G. Britton 2638* (CANM 197602; 197603).

Macromitrium shankii Crum, Bryologist 55: 281. 1952.
ISOTYPE. Honduras: Morazan, vicinity of El Zamorana, *P.J. Shank* (CANM 123733).

Macromitrium undosum Card., Rev. Bryol. 36: 108. 1909.
ISOTYPE. Mexico: Jalisco, near Guadalajara, PRINGLE, PLANTAE MEXICANAE 10560 (CANM 197604).
= *Groutiella undosa* (Card.) Crum & Steere

Macrothamniella robbinsii Bartr., Rev. Bryol. Lich. 30: 206. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, track to Sugarloaf Mts. from Tale R., Tsak Valley, S of Wapenamanda, *R.G. Robbins 2839* (CANM 197599).

Merceyopsis mexicana Bartr., J. Washington Acad. Sci. 18: 577. 1928.
ISOTYPE. Mexico: Jalisco, San Sebastian, E of Segundo Arroyo, *Y. Mexia 1568a* (CANM 197605).
= *Scopelophila ligulata* (Spruce) Spruce

Meteorium laevifolium Mitt., J. Linn. Soc. Bot. 12: 441. 1869.
SYNTYPE. Jamaica?: Brocus (CANM 197606).
= *Papillaria penicillata* (Dozy & Molk.) Broth.

Meteorium serricolum C. Müll., Bull. Herb. Boiss. 6: 116. 1898.
SYNTYPE. Brazil: Estado de Minas Gerais, Serra do Itacolumy, *E. Ule 1454* (CANM 161744).
= *Squamidium serricola* (C. Müll.) Broth.

Micromitrium austinii Sull. *in* Aust., Musci Appal. n. 45. 1870.
ISOTYPE. United States: New Jersey, Closter, AUSTIN, MUSCI APPAL. 45 (CANM 197607).

Micromitrium megalosporum Aust., Musci Appal. n. 47. 1870.
ISOTYPE. United States: New Jersey, near Camden; Pennsylvania, Philadelphia, AUSTIN, MUSCI APPAL. 47 (CANM 137937).

Mielichhoferia multiflora Bartr., Farlowia 2: 312. 1946.
ISOTYPE. Chile: Prov. de Nuble, Cordillera de Chillan, *H. Roivainen*, 15 April 1929 (CANM 111692).

Mielichhoferia praticola Card., Rev. Bryol. 38: 3. 1911.
ISOTYPE. Mexico: Ixtaccihuatl, *P.A. Purpus 3711* (CANM 197608).

Mittenothamnium subthelistegum Card., Rev. Bryol. 37: 55. 1910.
SYNTYPE. Mexico: Morelos, Parque Station, PRINGLE, PLANTAE MEXICANAE 10697 (CANM 197609).

Mnium andrewsianum Steere, Bryologist 61: 175. 1958.
PARATYPES. Canada: Northwest Territories, Great Bear Lake, Port Radium, Eldorado Mine, near and just N of Labine Point, *W.C. Steere 10136* (CANM 111299); Franklin Dist., Baffin I., Pond Inlet, *D. Coombs 21* (CANM 220966); Great Bear Lake, E end of McTavish Arm, Port Radium, N of Labine Point, *W.C. Steere 10461* (CANM 212246); Great Bear Lake, Hunter Bay E of Sloan River, *W.C. Steere 10602* (CANM 233499). United States: Alaska, Schrader Lake-Peter Lake area, Brooks Range, Franklin Mts., just NW of Mt. Chamberlin, *W.C. Steere 18909* (CANM 145501); Brooks Range, Endicott Mts., SW end of Chandler Lake, *W.C. Steere 18302* (CANM 145502). Greenland: Svartenhuk Pen, Umiarfik Fjord, Amitsoq, *K. Holmen 13020* (CANM 145503).
= *Rhizomnium andrewsianum* (Steere) Kop.

Mnium arizonicum Amann, Rev. Bryol. 52: 23. 1925.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., Mt. Lemon, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 72 (CANM 145520).

Mnium drummondii Bruch & Schimp., London J. Bot. 2: 669. 1843.
ISOTYPE. Canada: Alberta, Smoking R., DRUMMOND, MUSCI BOR. AMER. 257 (CANM 147372).
= *Plagiomnium drummondii* (Bruch & Schimp.) Kop.

Mnium inclinatum Lindb., Not. Sallsk. Fauna Flora Fennica Forhandl. 9: 48. 1868.
ISOTYPE. Sweden: Lappon Titensis, *S.O. Lindberg*, July 1856 (CANM 146823).
= *Plagiomnium cuspidatum* (Hedw.) Kop.

Mnium orthorrhynchum var. **tenellum** Bruch & Schimp., London J. Bot. 2: 669. 1843.
SYNTYPE. Canada(?): DRUMMOND, MUSCI BOR. AMER. 259 (CANM 146513).
= *M. marginatum* (With.) Brid. *ex* P. Beauv.

Moenckemeyera obtusifolia Williams, Bull. New York Bot. Gard. 3(9): 113. 1903.
SYNTYPE. Bolivia: Tumupasa, *R.S. Williams 1703* (CANM 197614).

Nanothecium foreaui Dix. & P. de la Varde, Ann. Crypt. Exot. 3: 181. 1930.
ISOTYPE. India: Travancore, Kannan Deva Hills, *G. Foreau 1221* (CANM 259394).

Nanomitrium austinii var. **floridanum** Grout, Moss Fl. N. Amer. 2: 71. 1935.
ISOTYPE. United States: Florida, Sanford, *S. Rapp*, GROUT, N. AMER. MUSCI PERF. 289 (CANM 197615).
= *Micromitrium austinii* Aust.

Neckera eucarpa var. **secundifolia** Williams, Bull. New York Bot. Gard. 6(21): 241. 1910.
ISOTYPE. Bolivia: Tacacoma, *R.S. Williams 1997* (CANM 197616).

Neckera menziesii Hook. *in* Drumm., Musci Bor. Amer. n. 162. 1828.
ISOTYPE. Canada: Alberta, Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 162 (CANM 197617).
= *Metaneckera menziesii* (Hook. *ex* Drumm.) Steere

Oreas mexicana Thér., Smiths. Misc. Coll. 81(1): 2. 1928.
ISOTYPE. Mexico: Michoacan, vicinity of Morelia, Cerro Azul, *Bro. Arsène 4793* (CANM 117555).
= *Hypnodontopsis mexicana* (Thér.) Robins.

Oreoweisia ligularis Mitt., J. Linn. Soc. Bot. 12: 53. 1869.
SNYTYPE. Ecuador: Andes Quitensis, in monte Picillum, *Jameson* (CANM 197619).
= *O. bogotensis* (Hampe) Mitt.

Orthotrichum brigantiacum Culm., Rev. Bryol. 53: 19. 1926.
ISOTYPES. France: Dép. des Hautes Alpes, Montagne des Guibertes bei Briancon, *P. Culmann*, BAUER, MUSCI EUR. AMER. EXS. 1922 (CANM 152785); Dép. des Hautes Alpes, Montagne des Guibertes, near Briancon, *P. Culmann*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 645 (CANM 152786).

Orthotrichum epapillosum Lawt. & Herm., Bryologist 76: 437. 1973.
ISOTYPE. United States: California, Lassen Co., ca. 21 mi. N of Lichtfield, *F.J. Hermann 24764* (CANM 219535).

Orthotrichum flowersii Vitt, Bryologist 74: 159. 1971.
ISOTYPE. United States: Utah, Washington Co., Zion Canyon, *S. Flowers 2584* (CANM 219786).

Orthotrichum johnstonii Bartr., Rev. Bryol. Lich. 13: 132. 1942.
ISOTYPE. Chile: Aguada Grande, near Antofagasta-Atacama provincial boundary, *I.M. Johnston 17* (CANM 197622).

Orthotrichum juranum var. **defluens** Culm., Rev. Bryol. 53: 55. 1926.
ISOTYPE. France: Dép. des Hautes Alpes, Vallée du Rabious, *P. Culmann*, BAUER, MUSCI EUR. AMER. EXS. 1923 (CANM 152820).
= *O. cupulatum* var. *luridum* Hag.

Orthotrichum keeverae Crum & Anders., J. Elisha Mitchell Sci. Soc. 72: 281. 1956.
ISOTYPE. United States: North Carolina, Alexander Co., Brushy Mts., Rocky Face Mt., near Hiddenite, *L.E. Anderson & C. Keever 7575* (CANM 197623).

Orthotrichum lescurii Aust., Musci Appal. n. 163. 1870.
ISOTYPE. United States: northern New Jersey and southern New York, AUSTIN, MUSCI APPAL. 163 (CANM 153116).
= *O. strangulatum* f. *lescurii* (Aust.) Vitt

Orthotrichum ohioense Sull. & Lesq. *in* Aust., Musci Appal. n. 169. 1870.
ISOTYPE. United States: Ohio and adjacent states, AUSTIN, MUSCI APPAL. 169 (CANM 153500).

Orthotrichum pringlei C. Müll., Bull. Torrey Bot. Cl. 13: 120. 1886.
ISOTYPE. United States: Oregon, Winchester Bay, Coos R., *C.G. Pringle*, October 1881 (CANM 153214).
= *O. lyellii* Hook. & Tayl.

Orthotrichum sordidum Sull. & Lesq. *in* Aust., Musci Appal. n. 168. 1870.
ISOTYPE. United States: New Jersey; New York; Massachusetts, Cambridge, *L. Lesquereux & T.P. James*, AUSTIN, MUSCI APPAL. 168 (CANM 153825).

Papillaria haitensis Crum & Steere, Amer. Midland Natural. 60(1): 28. 1958.
ISOTYPE. Haiti: Morne des Commissaires, *F.P. Mackaness 92* (CANM 197624).

Phascum cuspidatum var. **americanum** Ren. & Card., Bot. Gaz. 30: 12. 1900.
SYNTYPE. United States: Wisconsin, Madison, *L.L. Cheney*, RENAULD & CARDOT, MUSCI AMER. SEPT. 267 (CANM 197625).
= *P. cuspidatum* Hedw.

Phascum subexsertum Hook. *in* Drumm., Musci Bor. Amer. n. 9. 1828.
ISOTYPE. Canada: Saskatchewan, Carlton House, DRUMMOND, MUSCI BOR. AMER. 9 (CANM 267896).
= *Pottia bryoides* (Dicks.) Mitt.

Philonotis aristifolia Bartr., Farlowia 1: 177. 1943.
ISOTYPE. Burma: Mt. Nwalabo, Tavoy, *F.G. Dickason 8203* (CANM 197626; 197627).
PARATYPE. Burma: Langoon, Insein, *F.G. Dickason 8158* (CANM 122882; 150690).

Philonotis hermannii Robins., Phytologia 45: 460. 1980.
ISOTYPE. Bolivia: Dept. Cochabamba, NW slope of Mt. Tunari, 28 km NW of Cochabamba, *F.J. Hermann 25135* (CANM 276054).

Philonotis laxitexta Froehl., Ann. Naturh. Mus. Wien 57: 40. 1950.
ISOTYPE. Iran: Prov. Teheran, Montes Elburs Centr., in valle Pasgaleh, *K.H. & F. Rechinger 6883* (CANM 220635).

Philonotis luteola Bartr., Farlowia 2: 315. 1946.
ISOTYPE. Chile: Fuegia media, Estancia Vicuna, Puesto 20, Cerro Fuentes, *H. Roivainen*, 3 January 1929 (CANM 111694).

Philonotis marchica var. **coloradensis** Ren. & Card., Bot. Gaz. 22: 51. 1896.
ISOTYPE. United States: Colorado, Boulder Co., Springdale, *M. Holzinger*, RENAULD & CARDOT, MUSCI AMER. SEPT. 300 (CANM 151340).

Physcomitrella californica Crum & Anders., Bryologist 58: 4. 1955.
SYNTYPE. United States: California, Solano Co., Lake Chabot near Vallejo, *L.F. Koch 1320* (CANM 138657; 229545).

Physcomitrium collenchymatum Gier, Kans. Acad. Sci. Trans. 58: 330. 1955.
ISOTYPE. United States: Missouri, Clay Co., shore of Cooley Lake, SW¼SI, T51N, R30W, *L.J. Gier 6924* (CANM 197633).

Pilosium serrulatum Williams, J. Washington Acad. Sci. 20: 178. 1930.
ISOTYPE. Haiti: Dép. du Nord, vicinity of St. Michel de l'Atalaye, *E.C. Leonard 7248* (CANM 197634).

Pilotrichidium brunnescens Besch., Ann. Sci. Nat. Bot. ser. 6, 3: 244. 1876.
ISOTYPE. Guadeloupe: *l'Herminier* (CANM 197635).

Pilotrichum funale Wils., Ann. Mag. Nat. Hist. 20: 378. 1847.
ISOTYPE. Jamaica: Port Royal, *G. McNab*, 1847(?) (CANM 197637).
= *Papillaria nigrescens* (Hedw.) Jaeg.

Pilotrichum leoni Williams, Bryologist 26: 50. 1923.
ISOTYPE. Cuba: Pico Turquino, High Maestra, *Fre. Leon 11220* (CANM 197638).
= *P. lophophyllum* Sull.

Pireella squarrosa Arz., Amer. Midland Natural. 52(1): 33. 1954.
ISOTYPE. Haiti: Morne des Commissaires, on route to Savanne Zombi, *F.P. Mackaness 99* (CANM 197658).

Plagiothecium denticulatum var. **bullulae** Grout, N. Amer. Musci Perf. n. 450. 1915.
ISOTYPE. United States: Idaho, Elmore Co., Boise National Forest, Atlanta, *F.A. MacFadden*, GROUT, N. AMER. MUSCI PERF. 450 (CANM 245136).
= *P. denticulatum* (Hedw.) B.S.G.

Plagiothecium groutii Card. & Thér., Bot. Gaz. 37: 379. 1904.
ISOTYPE. United States: New York, Hempstead, L.I., *A.J. Grout*, GROUT, N. AMER. MUSCI PLEUR. 196 (CANM 130634; 197641).
= *Isopterygium tenerum* (Sw.) Mitt.

Plagiothecium nicans var. **latifolium** Grout, N. Amer. Musci Pleur. n. 480. 1922.
ISOTYPE. United States: Florida, Sanford, *S. Rapp*, GROUT, N. AMER. MUSCI PLEUR. 480 (CANM 130637).
= *Isopterygium tenerum* (Sw.) Mitt.

Plagiothecium passaicense Aust., Bull. Torrey Bot. Cl. 5: 24. 1874.
ISOTYPE. United States: New Jersey, Morris and Bergen Co., Passaic, AUSTIN, MUSCI APPAL. 352 (CANM 197642).
= *Isopterygium pulchellum* (Hedw.) Jaeg. & Sauerb.

Plagiothecium subfalcatum Aust., Musci Appal. n. 366. 1870.
ISOTYPE. United States: New Jersey; New York, *C.F. Austin*; Pennsylvania, *T.P. James*, AUSTIN, MUSCI APPAL. 366 (CANM 197643).
= *Isopterygium distichaceum* (Mitt.) Jaeg. & Sauerb.

Platygyriella jamaicensis Bartr., J. Washington Acad. Sci. 26: 14. 1936.
ISOTYPE. Jamaica: Newmarket, *C.R. Orcutt 7263* (CANM 197644).

Platygyrium perichaetiale Card., Bull. Soc. Bot. Genève ser. 2, 3: 287. 1911.
ISOTYPE. Korea: Quelpaert, *U. Faurie 276* (CANM 197487).
= *Entodon perichaetialis* (Card.) Nog. & Toyama

Pleuriditrichum marylandicum Andr. & Herm., Bryologist 62: 120. 1959.
ISOTYPE. United States: Maryland, Prince Georges Co., 1 mi. S of Beltsville, USDA Plant Industry Station, *F.J. Hermann 14328* (CANM 197649).

Pleuridium californicum Grout, Moss Fl. N. Amer. 1: 32. 1936.
ISOTYPE. United States: California, Altadena, *C.C. Kingman*, HOLZINGER, MUSCI ACRO. BOR. AMER. 330 (as *P. bolanderi* C. Müll.) (CANM 197646).

Pleuridium holdridgei Crum & Steere, Amer. Midland Natural. 60(1): 7. 1958.
ISOTYPE. Haiti: Morne des Commissaires, Jardin Bois, *L.R. Holdridge 3179* (CANM 197647).

Pleuridium ravenlii Aust., Bull. Torrey Bot. Cl. 6: 142. 1877.
SYNTYPES. United States: South Carolina, *H.W. Ravenel*, HOLZINGER, MUSCI ACRO. BOR. AMER. 473 (CANM 197648); South Carolina, *H.W. Ravenel*, Rhode Island, Bennett, New Jersey, *C.F. Austin*, AUSTIN, MUSCI APPAL. SUPPL. 1: 457 (CANM 112273).

Pleuropus appressifolius Williams, Bull. New York Bot. Gard. 8: 373. 1914.
SYNTYPE. Philippines: Northern Luzon, Benguet Prov., Loakan, Bagiuio, *R.S. Williams 1881* (CANM 197651).
= *Homalothecium appressifolium* (Williams) Broth.

Pogonatum hirtellum Kelly, Bryologist 44: 94. 1941.
ISOTYPE. Mexico: Hidalgo, Michoacan, *T.C. Frye & E.M. Frye*, FRYE, MOSS EXSICCATI 43 (CANM 122866; 197652).

Pogonatum sinuatodentatum Card., Rev. Bryol. 37: 5. 1910.
SYNTYPE. Mexico: Veracruz, near Jalapa, PRINGLE, PLANTAE MEXICANAE 10700 (CANM 197654).
= *P. tortile* (Sw.) Brid.

Pohlia andrewsii J. Shaw, Bryologist 84: 70. 1981.
ISOTYPE. Canada: Yukon Territory, Dawson area, 17 km E of the Yukon-Alaska border on Hwy 3, *J. Shaw* (CANM 266201).

Pohlia faeroensis C. Jens., Bot. Faeröes Dan. Invest. 1: 150: 1901.
SYNTYPES. Denmark: Faerö Is., Bordö, Graverdal, *C. Jensen*, 17 May 1896 (CANM 140845); Faerö Is., Syderø, near Famien, C. Jensen, 8 May 1896 (CANM 140846).
= *Bryum miniatum* Lesq.

Pohlia porosa Lindb. f., Bull. Torrey Bot. Cl. 27: 318. 1900.
ISOTYPE. United States: Washington, Mt. Rainier, *J.A. Allen*, ALLEN, MOSSES OF THE CASCADE MTS., WASH. 56 (as *P. (Cacodon) porosa* Lindb. f.) (CANM 197656).
= *P. cardotii* (Ren.) Broth.

Pohlia tundrae J. Shaw, Bryologist 84: 65. 1981.
ISOTYPE. United States: Colorado, Pitkin Co., near Aspen at the top of Independence Pass, *J. Shaw 2595* (CANM 266202).

Pohlia zacatecana Williams, Bryologist 26: 33. 1923.
ISOTYPE. Mexico: Zacatecas, between Bolanos and Guadalajara, *J.N. Rose*, 20 September 1897 (CANM 197657).

Polytrichum juniperinum var. **arcticum** Kuc, Bryophytorum Bibliotheca 2: 42. 1973.
HOLOTYPE. Canada: Northwest Territories, Axel Heiberg I., White Glacier, *M. Kuc M148* (CANM 209637).

Porotrichum neomexicanum Card., Rev. Bryol. 37: 8. 1910.
ISOTYPE. United States: New Mexico, Socorro Co., Mogollon Mts., W fork of Gila R., *O.B. Metcalfe 474* (CANM 276785).
= *Metaneckera menziesii* (Hook. ex Drumm.) Steere

Pottia fosbergii Bartr., Bryologist 33: 18. 1930.
ISOTYPE. United States: California, Los Angeles Co., Claremont, E side of Indian Hill, *F.R. Fosberg D24a* (CANM 197660).

Pottia nevadensis Card. & Thér., Bot. Gaz. 37: 365. 1904.
ISOTYPE. United States: Nevada, Ormsby Co., King's Canyon, *C.F. Baker*, HOLZINGER, MUSCI ACRO. BOR. AMER. 155 (CANM 197662).

Pottia randii Kenn., Rhodora 1: 78. 1899.
ISOTYPE. United States: Maine, Baker I., *E.L. Rand*, 15 July 1898 (CANM 197663).
= *Desmatodon randii* (Kenn.) Laz.

Pottia riparia Aust., Musci Appal. n. 112. 1870.
ISOTYPE. United States: New Jersey (Palisades and northern) and southern New York, AUSTIN, MUSCI APPAL. 112 (CANM 127020).
= *Hyophila involuta* (Hook.) Jaeg. & Sauerb.

Pottia texana Wareham in Grout, Moss Fl. N. Amer. 1: 201. 1939.
ISOTYPE. United States: Texas, near San Marcos, *C. Wright*, SULLIVANT & LESQUEREUX, MUSCI BOR. AMER. (Ed. 2) 117 (as *P. minutula* Schwaegr.) (CANM 197661).

Prionodon arsenei Thér., Smiths. Misc. Coll. 78(2): 25. 1926.
ISOTYPE. Mexico: Puebla, Esperanza, *Bro. Arsène* 4747 (CANM 197664).

Prionodon solorzanoi Card., Rev. Bryol. 37: 7. 1910.
SYNTYPE. Mexico: Hidalgo, near Honey Station, PRINGLE, PLANTAE MEXICANAE 10489 (CANM 197665).

Prionodon undulatus Mitt., J. Linn. Soc. Bot. 12: 420. 1869.
ISOLECTOTYPE. Colombia: Novae-Granatenses, Andes Bogotenses, ad viam inter Tipaquira et Pacho, *J. Weir*, Reliquiae of W.F. Brotherus No. B 11689 (CANM 256648).

Pseudoditrichum mirabile Steere & Iwats., Can. J. Bot. 52: 701. 1974.
ISOTYPE. Canada: Northwest Territories, Great Bear Lake, E end of McTavish Arm, near Hunter Bay, below first falls of Sloan R., *W.C. Steere 10589* (CANM 219785).

Pseudoleskea artariae Thér., Rev. Bryol. 25: 11. 1898.
PARATYPE. Italy: Prov. Comensis, Argegno ad Larium, *P. Aug. Artaria*, 20 July 1898 (CANM 197667).
= *Pseudoleskeopsis artariae* (Thér.) Thér.

Pseudocyrtoblepharis bartramii Thér., J. Washington Acad. Sci. 19: 16. 1929.
ISOTYPE. Costa Rica: Prov. de Heredia, Cerros de Zurqui, NE of San Isidro, *P.C. Standley & J. Valerio 50701* (CANM 197668).

Pterygoneurum pusillum var. **brevisetum** Sav., Bull. Jard. Bot. Princ. URSS 26: 79. 1927.
ISOTYPE. U.S.S.R.: Rossia austr.-orientalis, Astrachan in vicin. lac Baskunczak, *V.P. Savicz*, L.I. & V.P. SAVICZ, BRYOTHECA ROSSICA 6 (CANM 197670).
= *P. ovatum* var. *humile* (Amann) Podp.

Pterygoneurum subsessile var. **kieneri** Hab., Rhodora 51: 128. 1949.
ISOTYPE. United States: Nebraska, Chase Co., 8 mi. W of Champion, *W. Kiener* 10627 (CANM 116640).

Pterygophyllum novae-guineae Bartr., Rev. Bryol. Lich. 30: 200. 1961.
SYNTYPE. New Guinea: Western Highlands Dist., Wabag area, Sugarloaf Mts., track from Tale R. in Tsak Valley S of Wapenamanda, *R.G. Robbins 2828* (CANM 197669).

Ptychomitrium exaratifolium Robins., Bryologist 62: 227. 1960.
ISOTYPE. South Africa: Transvaal, Ship Mt., vicinity of Pretorius Kop, Kruger National Park, *R.K. Godfrey GH-690c* (CANM 197671).

Ptychomitrium godfreyi Robins., Bryologist 62: 225. 1960.
ISOTYPE. South Africa: Natal, 25 mi. NE of Ladysmith, *R.K. Godfrey GH-1889a* (CANM 197672).

Renauldia subpilifera Williams, J. Washington Acad. Sci. 20: 176. 1930.
ISOTYPE. Dominican Republic: Prov. de Barahona, Polo, Loma la Haut, *W.L. Abbott 1879* (CANM 197675).
= *Pilotrichella cuspidans* Ren. & Card.

Rhabdoweisia fugax var. **tenerrima** Bartr., Bryologist 50: 213. 1947.
ISOTYPE. Guatemala: Quetzaltenango, Cerro de Sija, *A.J. Sharp 5035* (CANM 197676).

Rhacomitrium elongatum Ehrh. ex Frisvoll, Gunneria 41: 74. 1983.
ISOTYPE. Norway: Sør-Trøndelag, Skaun, Djupsjøåsen, *A.A. Frisvoll*, 31 May 1982 (CANM 280102).

Rhacomitrium lawtonae Irel., Bryologist 73: 707. 1970.
HOLOTYPE. Canada: British Columbia, Queen Charlotte Is., Moresby I., Mitchell Inlet, *W.B. Schofield 15433* (CANM 160062).

Rhaphidostegium lozanoi Card., Rev. Bryol. 37: 57. 1910.
SYNTYPE. Mexico: Federal Dist., Cima, PRINGLE, PLANTAE MEXICANAE 10803 (CANM 197678).

Rhaphidostichum papuanum Bartt., Brittonia 11: 95. 1959.
ISOTYPE. New Guinea: Chimbu subdist., Eastern Highlands, Mt. Wilhelm, *R.G. Robbins 731* (CANM 197679).

Rhegmatodon pringlei Card., Rev. Bryol. 37: 58. 1910.
ISOTYPE. Mexico: Puebla, Teznitlan, PRINGLE, PLANTAE MEXICANAE 15285 (CANM 197680).

Rhizomnium appalachianum Kop., Ann. Bot. Fennici 10: 11. 1973.
ISOTYPE. Canada: Ontario, Nipissing Dist., Algonquin Provincial Park, Highland Hiking Trail, NW of Whitney, *T. Koponen 22774* (CANM 212178).

Rhizomnium gracile Kop., Ann. Bot. Fennici 10: 16. 1973.
ISOTYPE. Canada: Manitoba, 3-5 mi. E of Fort Churchill along road to Twin Lake Hill, *H. Crum 6679* (CANM 145480).

Rhizomnium hattorii Kop., J. Hattori Bot. Lab. 34: 378. 1971.
ISOTYPE. Japan: Kyushu I., Kumamoto Pref., Kuma-gun, Yunomae-cho, Mt. Ichibusa, *T. Koponen 11023* (CANM 206918).

Rhizomnium tucmikoskii Kop., J. Hattori Bot. Lab. 34: 375. 1971.
ISOTYPE. Japan: Miyazaki Pref., Nichinan-shi, Sakatani, Inotani, *Z. Iwatsuki & M. Misutani*, NOGUCHI & HATTORI, MUSCI JAP. 1082 (as *Mnium punctatum* Schreb.) (CANM 111388).

Rhynchostegiopsis lutescens Britt. *ex* Broth., Nat. Pfl. ed. 2, 11: 263. 1925.
PARATYPES. Jamaica: Blue Mts., slopes of Sir John and summit, *E.G. Britton 1142* (CANM 197685; 197682); *G.E. Nichols 184* (CANM 197681).

Rhynchostegiopsis planifolia Crum & Bartt., Bull. Inst. Jamaica Sci. ser. 8: 55. 1958.
ISOTYPE. Jamaica: Blue Mt. Peak track, *R.G. Robbins 89* (CANM 197683).
= *R. lutescens* Britt. *ex* Broth.

Rhynchostegium argute-serratum Bartt., J. Washington Acad. Sci. 26: 13. 1936.
ISOTYPE. Jamaica: Booby Woods, May Hall, *C.R. Orcutt 6962* (CANM 197684).

Rhynchostegium geophilum Aust., Musci Appal. n. 345. 1870.
ISOTYPE. United States: New Jersey, *C.F. Austin*; Pennsylvania, *T.P. James*; New York, *C.H. Peck*, AUSTIN, MUSCI APPAL. 345 (CANM 197649).
= *Taxiphyllum taxirameum* (Mitt.) Fleisch.

Rhynchostegium pringlei Card., Rev. Bryol. 37: 70. 1910.
SYNTYPES. Mexico: Morelos, Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10525 (CANM 197686); Morelos, Cuernavaca, PRINGLE, PLANTAE MEXICANAE 10434 (CANM 197687).
= *Eurhynchium pringlei* (Card.) Crum & Anders.

Schistidium holmenianum Steere & Brass., Bryologist 79: 208. 1976.
ISOTYPE. United States: Alaska, vicinity of Ogotoruk Creek, S of Cape Thompson, Chukchi Sea, near SW end of Brooks Range, *W.C. Steere 63-507* (CANM 244580).

Sciaromium bartlettii Crum & Steere, Amer. Midland Natural. 60(1): 40. 1958.
ISOTYPE. Haiti: southern peninsula, Beaumont to Morne Geffrard, Arrondissement de Jérémie (N of divide on road from Les Roseaux to Les Cayes), *H.H. Bartlett 17665* (CANM 197691).

Sciaromium bellii Broth., Oefv. Finsk.-Vet. Soc. Foerh. 40: 189. 1898.
SYNTYPE. New Zealand: Southland, Lime Hills, *W. Bell 505* (CANM 197692).

Scleropodium julaceum Lawt., Bull. Torrey Bot. Cl. 94: 22. 1967.
ISOTYPE. United States: California, Los Angeles Co., Sepulveda Canyon, *P.A. MacFadden 18595* (CANM 197693).

Scorpiurium circinnatum f. pterigynandroidea Bott. & Weiss *in* Bauer, Musci Eur. Exs. n. 1331. 1915.
ISOTYPE. Italy: Toscana, Pisa, Monte Pisano, *Marquis Ant. Bottini & E. Weiss*, BAUER, MUSCI EUR. EXS. 1331 (CANM 177273).

Scouleria marginata Britt., Bull. Torrey Bot. Cl. 22: 42. 1895.
ISOLECTOTYPE. United States: Washington, Spokane Falls, *S. Watson*, 24 September 1880 (CANM 197546).

Seligeria tristicha var. **laxa** Holz., Bryologist 5: 63. 1902.
ISOTYPE. United States: Vermont, slides at Willoughby, *G.G. Kennedy*, 13 June 1896 (CANM 114316).
= *S. tristichoides* Kindb.

Sematophyllum angusticuspes Broth., Rec. Bot. Surv. India 1: 326. 1899.
SYNTYPE. India: Coorg, near Verajpet, *T.L. Walker 160* (CANM 197695).

Sematophyllum angustirete Bartr., Bryologist 50: 207. 1947.
ISOTYPE. Guatemala: Baja Verapaz, near Civija, *A.J. Sharp 5120* (CANM 197694).

Sematophyllum gracile Bartr., Rev. Bryol. Lich. 30: 203. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Tsak Valley, Tale R. track to Sugarloaf Mts., *R.G. Robbins 2771* (CANM 197696).

Sematophyllum tenuicarpum Williams, Bull. New York Bot. Gard. 6: 253. 1910.
ISOTYPE. Bolivia: Tumupasa, *R.S. Williams 2066* (CANM 197697).

Solmsiella kurzii Steere, Bryologist 37: 97. 1935.
ISOTYPE. United States: Florida, edge of Lake Miccosukee, ½ mi. S of Judge Hopkin's camp, *H. Kurz 85* (CANM 152188).
= *Erpodium biseriatum* (Aust.) Aust.

Sphagnum acutifolium var. **flavicomans** Card., Rev. Bryol. 11: 55. 1884.
ISOTYPE. France: Ile Miquelon, *Delamare*, RENAULD & CARDOT, MUSCI AMER. SEPT. EXS. 145 (CANM 102073).
= *S. flavicomans* (Card.) Warnst.

Sphagnum acutifolium var. **intermedium** Aust., Musci Appal. n. 15. 1870.
ISOTYPE. United States: southern New Jersey; Canada: New Brunswick, *J. Fowler*, AUSTIN, MUSCI APPAL. 15 (CANM 102480).
= *S. warnstorfii* Russ.

Sphagnum coryphaeum Warnst., Hedwigia 29: 189. 1890.
SYNTYPE. Colombia: Novae-Granatenses, Andes Bogotenses, ad viam inter Bogota et Fusagasuga, *J. Weir*, Reliquiae of V.F. Brotherus No. R 11711 (CANM 256662).
= *S. meridense* (Hampe) C. Müll.

Sphagnum molluscum var. **hydrophilum** Warnst., Sphagn. Univ. 275. 1911.
SYNTYPE. U.S.S.R.: Kaliningrad, (Prussia: Königsberg), zwischen Schwentlund und dem Waldhause (Cranz), *C. Baenitz*, 20 September 1892 (CANM 105667).
= *S. tenellum* var. *hydrophilum* (Warnst.) Wijk & Marg.

Sphagnum splendens Maass, Bryologist 70: 193. 1967.
HOLOTYPE. Canada: Québec, Abitibi Co., 50 mi. W of Chapais, *W.S.G. Maass*, 5 September 1965 (CANM 259993).

Splachnobryum julaceum Besch., Rev. Bryol. 18: 76. 1891.
ISOTYPE. Guadeloupe: Matouba, *Ed. Marie* (CANM 197698).
= *S. obtusum* (Brid.) C. Müll.

Splachnum heterophyllum Drumm., Musci Bor. Amer. n. 37. 1828.
ISOTYPE. Canada: Alberta, DRUMMOND, MUSCI BOR. AMER. 37 (CANM 197699).
= *S. vasculosum* Hedw.

Splachnum intermedium Drumm., Musci Bor. Amer. n. 39. 1828.
ISOTYPE. Canada: Manitoba, York Factory, DRUMMOND, MUSCI BOR. AMER. 39 (CANM 197700).
= *S. sphaericum* Hedw.

Stereodon richardsonii Mitt., J. Linn. Soc. Bot. 8: 42. 1865.
LECTOTYPE. Canada: Northwest Territories, Great Bear Lake, *J. Richardson*, DRUMMOND, MUSCI BOR. AMER. 211 (CANM 176512).
= *Calliergon richardsonii* (Mitt.) Kindb.

Stereophyllum panamense Bartr. *in* Crum & Arz., Rev. Bryol. Lich. 22: 158. 1953.
ISOTYPE. Panama: Canal Zone, between Madden Dam and Saddle Il near Alahuela, *J.A. Steyermark & P.H. Allen 16518* (CANM 197701).

Streptopogon matudianus Crum, Bryologist 55: 51. 1952.
ISOTYPE. Mexico: Veracruz, El Puerto, *A.J. Sharp 689* (CANM 197702).

Symblepharis tenuis Williams, Bryologist 31: 110. 1928.
ISOTYPE. Peru: Prov. of La Convencion, Dept. Cuzco, *C. Büse*, October 1920 (CANM 197703).

Symphysodon integrifolius Bartr., Rev. Bryol. Lich. 30: 198. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Lower Lai Valley near Yalis, *R.G. Robbins 2658* (CANM 197704).

Synthetodontium pringlei Card., Rev. Bryol. 36: 111. 1909.
SYNTYPE. Mexico: Federal Dist., Canada, Valley of Mexico, PRINGLE, PLANTAE MEXICANAE 10557 (CANM 197705).

Syrrhopodon elongatus Sull., Proc. Amer. Acad. Arts Sci. 5: 280. 1861.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 49 (CANM 252291).

Syrrhopodon recurvulus Mitt., J. Linn. Soc. Bot. 12: 120. 1869.
ISOTYPE. Cuba: WRIGHT, MUSCI CUBENSES 47 (as *S. gaudichaudii* Mont.) (CANM 252292).
= *S. gaudichaudii* var. *recurvulus* (Mitt.) Thér.

Syrrhopodon robbinsii Bartr., Brittonia 13: 369. 1961.
ISOTYPE. New Guinea: Madang Dist., Lower Ramu-Atitau, foothills, Adelbert Range near Josephstaal, *R.G. Robbins* (CANM 197706).

Syrrhopodon rubiginosus Mitt., J. Linn. Soc. Bot. 12: 125. 1869.
ISOTYPE. Venezuela: Orinoco, prope cataractas Maypures, *R. Spruce 18b* (CANM 123735).

Syrrhopodon sordidus C. Müll., Bot. Zeit. 6: 766. 1848.
ISOTYPE. Venezuela: Prov. de Carabobo, *H. Funck & L.J. Schlim 617* (CANM 252289).
= *S. circinatus* (Brid.) Mitt.

Syrrhopodon theriotii Bartr., Contr. U.S. Nat. Herb. 26: 73. 1928.
PARATYPE. Costa Rica: Prov. de Heredia, Cerro de las Lajas, *P.C. Standley & J. Valerio 51527* (CANM 252290).

Taxiphyllum howellianum Crum & Anders., J. Elisha Mitchell Sci. Soc. 74: 38. 1958.
ISOTYPE. United States: North Carolina, Macon Co., Howell Tract, below Cowee Gap, W of Cashiers, *L.E. Anderson 11071* (CANM 197707).
= *Isopterygium distichaceum* (Mitt.) Jaeg. & Sauerb.

Taxiphyllum machrisianum Crum, Contr. Sci. Los Angeles Mus. 18: 5. 1957.
ISOTYPE. Brazil: Goias, Chapada dos Veadeiros, 4 km N of Veadeiros, *E.Y. Dawson 14743a* (CANM 197708).

Tayloria chiapensis Crum, Bryologist 54: 270. 1951.
ISOTYPE. Mexico: Las Chiapas, near San Cristobal, *J. Munch*, 21 December 1907 (CANM 197709).

Tayloria cochabambae C. Müll., Nuov. Giorn. Bot. Ital. n. ser. 4: 11. 1897.
ISOTYPE. Bolivia: Prov. Cochabamba, near Choquecamata, *Germain*, June 1889 (CANM 197710).

Thuidium brevisetum Bartr., Rev. Bryol. Lich 30: 201. 1961.
ISOTYPE. New Guinea: Western Highlands Dist., Wabag area, Mt. Hagen near Yaramanda, *R.G. Robbins 2723* (CANM 197711).

Thuidium pycnangiellum C. Müll. *ex* Broth., Bot. Jahrb. 24: 283. 1898.
ISOTYPE. Africa: Camerunia, *P. Dusen 225* (CANM 197712).

Thuidium robbinsii Bartt., Brittonia 13: 376. 1961.
ISOTYPE. New Guinea: Madang Dist., Lower Ramu-Atitau, near Nagaru Village, Keram R., *R.G. Robbins 1548* (CANM 197713; 197714).

Thuidium robustum Card., Rev. Bryol. 37: 52. 1910.
SYNTYPES. Mexico: Federal Dist., Cima, PRINGLE, PLANTAE MEXICANAE 10579 (CANM 197715; 197718); Federal Dist., Cima, PRINGLE, PLANTAE MEXICANAE 10537 (CANM 197716; 197717).

Thuidium scitum var. **aestivale** Aust., Musci Appal. n. 301. 1870.
ISOTYPE. United States: New Jersey and New York, AUSTIN, MUSCI APPAL. 301 (CANM 168959).
= *Thuidium scitum* (P. Beauv.) Aust.

Timmia norvegica Zett., Oefv. K. Vet.-Ak. Foerh. 19: 364. 1862.
ISOLECTOTYPE. Norway: Köngsvold, Dovre, *J.E. Zetterstedt*, 10 August 1858 (CANM 152115).
PARATYPE. Norway: Köngsvold, *J.E. Zetterstedt*, 1854 (CANM 152117).

Tortella glareicola T. Christ., Bot. Tidskr. 55: 47. 1959.
ISOTYPE. Denmark: Jutland, Bulbjerg, *T. Christensen*, BRY. DANICA EXS. 439 (CANM 197720).
= *T. flavovirens var. glareicola* (T. Christ.) Crundw. & Nyh.

Tortella mollissima Broth. *ex* Bartt., Bryologist 50: 203. 1947.
ISOTYPE. Mexico: Veracruz, Zacualpan, *P.A. Purpus 9361* (CANM 197721).

Tortella subfragilis Crum & Steere, Bryologist 59: 250. 1956.
ISOTYPE. Puerto Rico: Sierra de Luquillo, Mt. Britton peak, *W.C. Steere 7091* (CANM 126484).

Tortella tortuosa f. falcata Lisowski, Bryotheca Polonica Fasc. VII, n. 208. 1956.
ISOTYPE. Poland: Bieszczady Zachodnie - pars occidentalis montis Rawka, *S. Lisowski*, LISOWSKI, BRYOTHECA POLONICA FASC. VII. 208 (CANM 126740).

Tortula arcuata Mitt., J. Linn. Soc. Bot. 12: 163. 1869.
ISOLECTOTYPE. Bolivia(?): Andes Quitensis, *W. Jameson* (CANM 197722).

Tortula aurea Bartt., Bull. Torrey Bot. Cl. 51: 339. 1924.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., Bear Canyon, *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 98 (CANM 197723).
= *Pseudocrossidium aureum* (Bartt.) Zander

Tortula bistratosa Flow., Bryologist 54: 278. 1951.
ISOTYPE. United States: Utah, Salt Lake Co., about 12 mi. W of Salt Lake City on U.S. Hwy. 40, *S. Flowers 7413-A* (CANM 197725).

Tortula bryoides Hook. *in* Drumm., Musci Bor. Amer. n. 135. 1828.
ISOTYPE. Canada: British Columbia or Alberta?, Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 135 (CANM 197726).
= *Desmatodon laureri* (Schultz) B.S.G.

Tortula cainii Crum & Anders., J. Elisha Mitchell Sci. Soc. 74: 35. 1958.
ISOTYPE. Canada: Ontario, Simcoe Co., Buck Lake, near Sparrow Lake, *R.F. Cain 1035* (CANM 197728).

Tortula connectens Card., Rev. Bryol. 36: 87. 1909.
SYNTYPE. Mexico: Mexico, above Toluca, PRINGLE, PLANTAE MEXICANAE 10526 (CANM 197730).
= *T. obtusissima* var. *connectens* (Card.) Thér.

Tortula fragilifolia Bartt., Bull. Torrey Bot. Cl. 51: 338. 1924.
ISOTYPE. United States: Arizona, Santa Cruz Co., White House Canyon, Santa Rita Mts., *E.B. Bartram*, BARTRAM, MOSSES S. ARIZ. 87 (CANM 197731).
= *T. fragilis* Tayl.

Tortula papillosa var. **meridionalis** Warnst., Krypt. Fl. Brandenburg 2: 265. 1904.
ISOTYPE? Italy: Prov. Comensis, Valle S. Martino, *F. Aug. Artaria*, 20 March 1898 (CANM 197732.)

Tortula patriei Broth. *ex* Beck., Trans. New Zealand Inst. 29: 461. 1897.
ISOTYPE. New Zealand: Westland, Kelly's Range, *D. Petrie*, 1896 (CANM 197733).

Tortula propagulosa Sharp, Bryologist 36: 20. 1933.
ISOTYPE. United States: Tennessee, Knoxville, F.F. van Deventer Estate, *A.J. Sharp*, GROUT, N. AMER. MUSCI PERF. 255 (CANM 197734).

Tortula stanfordensis Steere, Bryologist 54: 119. 1951.
SYNTYPE. United States: California, Santa Clara Co., Stanford University Campus, 686 Mayfield Road, *W.C. Steere*, 26 March 1951 (CANM 197735).

Trachyloma indicum var. **teretiramum** Miller & Manuel, J. Hattori Bot. Lab. 51: 313. 1982.
PARATYPE. New Guinea: eastern highlands, Bismark Ranges, Mt. Wilhelm, slopes S of Lake Aunde, *L.K. Wade*, August 1966 (CANM 201605).

Trachyphyllum inflexum var. **patentifolium** Dix. & P. de la Varde, Ann. Crypt. Exot. 3: 181. 1930.
ISOTYPE. India: Tinnevelly Dist., Mundathurai, *G. Foreau 977* (CANM 183571).

Trematodon lozanoi Card., Rev. Bryol. 36: 68. 1909.
ISOTYPE. Mexico: Jalisco, Etzatlan, *C.G. Pringle 10613* (CANM 197736).

Trematodon perseonorum Allorge & Thér. *ex* Allorge, Rev. Bryol. Lich. 20: 179. 1951.
SYNTYPE. Azores: S. Miguel, Lagos das Furnas, V. & P. ALLORGE, BRYOPHYTA AZORICA 64 (CANM 197737).

Trichosteleum robbinsii Bartr., Brittonia 13: 378. 1961.
ISOTYPE. New Guinea: Madang Dist., Lower Ramu-Atitau, near Bangansop Village, Sangan Stream gorge, Adelbert Range, *R.G. Robbins 1645* (CANM 197738).

Trichosteleum sepikense Bartr., Brittonia 13: 378. 1961.
ISOTYPE. New Guinea: Sepik River Dist., Wewak-Angoram area, Murak Lagoons, Sepik R. mouth, *R.G. Robbins 2580* (CANM 197739).

Trichostomopsis brevifolia Bartr., Bryologist 34: 61. 1931.
ISOTYPE. United States: California, Los Angeles Co., Verdugo Hills, La Tuna Canyon, above Johnson's Ranch, *F.A. MacFadden 8107* (CANM 197740).
= *Didymodon australasii* (Hook. & Grev.) Zander

Trichostomopsis fayae Grout, Moss Fl. N. Amer. 1: 228. 1939.
ISOTYPE. United States: California, Los Angeles Co., San Fernando Valley, *F.A. MacFadden 8172* (CANM 197749).
= *Didymodon australasii* (Hook. & Grev.) Zander

Trichostomum angustifolium Crum & Steere, Amer. Midland Natural. 60(1): 13. 1958.
ISOTYPE. Haiti: southward from Kenscoff (24 km S of Port-au-Prince) to the crest of the mountain ridge, *H.H. Bartlett 17694* (CANM 197751).

Trichostomum chlorophyllum C. Müll., Linnaea 38: 635. 1874.
ISOTYPE. Mexico: Mirador, *F. Sartorius*, 1873 (CANM 197741).

Trichostomum clintoni C. Müll., Linnaea 38: 636. 1874.
ISOTYPE. Mexico: in terra nuda locis siccis planitiei Cordovae et prope Huatusco, *C. Mohr* (CANM 197742).

Trichostomum fallaciosum Welch & Crum, Bryologist 62: 168. 1959.
ISOTYPE. Jamaica: Portland Parish, John Crow Mts., SW of Ecclesdown, *W.H. Welsh 17709* (CANM 197744).

Trichostomum indigens Ren. & Card., Bot. Gaz. 22: 50. 1896.
ISOTYPE. Canada: Newfoundland, Bay of Islands, *A.C. Waghorne*, RENAULD & CARDOT, MUSCI AMER. SEPT. 280 (as *Barbula indigens* (Ren. & Card.) Ren. & Card.) (CANM 197343).
= *Barbula unguiculata* Hedw.

Trichostomum spirale Grout, Moss Fl. N. Amer. 1: 162. 1938.
ISOTYPE. United States: Wisconsin, Polk Co., St. Croix Falls, *C.F. Baker*, November 1897 (CANM 197748).

Ulota cervina Hoe & Crum, Bryologist 74: 487. 1971.
ISOTYPE. United States: Hawaii, Maui, Kipahulu Valley, vicinity of Base Camp 3, *W.J. Hoe* 1803.0 (CANM 208773).

Webera elatior Dix. & Sainsb., Trans. R. Soc. New Zealand 75: 179. 1945.
ISOTYPE. New Zealand: Mt. Girdlestone, Tongariro National Park, *G.O.K. Sainsbury 966* (CANM 197655).
= *Pohlia elatior* (Dix. & Sainsb.) Sainsb.

Webera integra Card., Rev. Bryol. 38: 4. 1911.
ISOTYPE. Mexico: Ixtaccihuatl, *P.A. Purpus 3715* (CANM 197613).
= *Mniobryum integrum* (Card.) Broth.

Weissia andrewsii Bartt., Bryologist 30: 82. 1927.
ISOTYPE. United States: Arizona, Pima Co., Santa Catalina Mts., mouth of Canada del Oro, *E.B. Bartram*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 666 (as *W. crispata* (Bry. germ.) Jur.) (CANM 125011).

Weissia macrocarpa Hook. *in* Drumm., Musci Bor. Amer. 74. 1828.
ISOTYPE. Canada: Alberta, among the Rocky Mts., DRUMMOND, MUSCI BOR. AMER. 74 (CANM 197753).
= *Mielichhoferia macrocarpa* (Hook.) Bruch & Schimp.

Weissia sinaloensis Bartt., Bryologist 28: 65. 1925.
ISOTYPE. Mexico: Sinaloa, Mazatlan, *E.B. Bartram*, HOLZINGER, MUSCI ACRO. BOR. AMER. EUR. 567 (as *Hyophila sinaloensis* (Bartt.) Bartt. (CANM 197577).
= *Hyophila sinaloensis* (Bartt.) Bartt.

Weissia turbinata Drumm., Musci Bor. Amer. n. 64. 1828.
ISOTYPE. Canada: Manitoba, York Factory, DRUMMOND, MUSCI BOR. AMER. 64 (CANM 197754).
= *Tayloria lingulata* (Dicks.) Lindb.

Weissiopsis spathulifolius Crum & Bartt., Bull. Inst. Jamaica Sci. ser. 8: 23. 1958.
ISOTYPE. Jamaica: Ocho Rios Bay, *R.G. Robbins 63* (CANM 197746; 197747; 197752).

Zygodon oligodontus Card., Rev. Bryol. 36: 107. 1909.
ISOTYPE. Mexico: Federal Dist., Cima, PRINGLE, PLANTAE MEXICANAE 10546 (CANM 197755).
= *Z. leibmannii* Schimp.

Anastrophyllum mayebarae Hatt., J. Jap. Bot. 28: 141. 1953.
ISOTYPE. Japan: Yakushima I., Kosugidani, *K. Mayebara*, HATTORI, HEP. JAP. 202 (CANM 137).
= *A. bidens* (Nees) Steph.

Anastrophyllum tenue H. Williams, Bryologist 71: 34. 1968.
ISOTYPE. Canada: Ontario, Bruce Co., St. Edmund Twp., N of Emmett Lake, *H. Williams 1848* (CANM 10713).

Anthoceros husnoti Steph., Rev. Bryol. 15: 49. 1888.
ISOTYPE. France: Mesnil-Hubert-Pont-d'Ouilly (Orne), HUSNOT, HEP. GALLIAE 171 (CANM 265).

Aphanolejeunea teotonii V. Allorge & Jov.-Ast, Rev. Bryol. Lich. 19: 21. 1950.
SYNTYPE. Azores: S. Miguel, Parc José de Canto, Furnas, V. & P. ALLORGE, BRYOPHYTA AZORICA 34 (CANM 358).

Aplozia atrovirens var. **riparioides** Bernet, Cat. Hepat. S.-O. Suisse 60. 1888.
ISOTYPE? Switzerland: dans les ravins d'Onex et de Bernex, près de Genève, *H. Bernet*, March (CANM 4137).
= *Jungermannia atrovirens* Dum.

Aspiromitus argillaceus Steph., Sp. Hep. 5: 970. 1916.
ISOTYPE. Java Occ.: Res. Batavia, Buitenzorg, *V. Schiffner*, VERDOORN, HEP. SELECT. CRIT. 198 (CANM 10531).
= *Anthoceros argillaceus* (Steph.) Verd.

Asterella sanoana Shim. & Hatt., J. Hattori Bot. Lab. 9: 25. 1953.
ISOTYPE. Japan: Nagano Co., by Chikuma R., Ikura near Azusayama, *D. Shimizu & S. Sano*, HATTORI, HEP. JAP. 203 (CANM 428).

Athalamia glauco-virens f. **subsessilis** Shim. & Hatt., J. Hattori Bot. Lab. 12: 58. 1954.
ISOTYPE. Japan: Saitama Co., Chichibu Mts., at Kaminakao of Otaki, *D. Shimizu*, HATTORI, HEP. JAP. 253 (CANM 437; 10781).
= *An nana* (Shim. & Hatt.) Hatt.

Calypogeia allorgei *Buch & Perss., Soc.* Sci. Fennica Comm. *Biol.* 8(7): 5. 1941.
SYNTYPE? Azores: *S. Jorge, entre* Calheta et Topo, *V. & P. ALLORGE,* BRYOPHYTA AZORICA *8 (CANM 1304).*

Cephalozia mayebarae *Hatt., J. Hattori* Bot. Lab. 3: 37. *1948.*
ISOTYPE. Japan: *Kyushu, Kumamtot,* Kuma, Isshoochi, *K. Mayebara,* HATTORI, HEP. JAP. 66 (CANM 1725).
= *Lophozia mayebarai* (Hatt.) N. Kitag.

Drepanolejeunea cancroides Miller & Bonner, Nova Hedwigia 11(Beih.): 53. 1963.
PARATYPE. Micronesia: Ulul Atoll, *H.A. Miller & H.O. Whittier 1023A* (CANM 2624).

Fossombronia alaskana Steere & Inoue, Bryologist 77: 66. 1974.
ISOTYPE. United States: Alaska, Brooks Range, LDe Long Mts., Noluck Lake, *W.C. Steere 72-360* (CANM 15326).

Fossombronia cristula var. **verdoornii** Chalaud, Annales Bryol. 4: 146. 1931.
ISOTYPE. Java Occ.; Res. Priangan, G. Gede, *P. Verdoorn*, VERDOORN, HEP. SELECT. CRIT. 59 (CANM 10529).

Frullania inconstans Verd., Nova Guinea 14: 543. 1932.
ISOTYPE. Nova Guinea Hollandica: in m. Goliath, *De Kock*, VERDOORN, HEP. SELECT. CRIT. 297 (CANM 10530).

Frullania mayebarae Hatt., Bot. Mag. Tokyo 65: 13. 1952.
PARATYPE. Japan: Kyushu, Kumamoto, Ohno, sides of Kuma R., *K. Mayebara*, HATTORI, HEP. JAP. 125 (CANM 3035; 10789).

Frullania nodulosa f. **irrefleza** Verd., Ann. Crypt. Exot. 1: 220. 1928.
ISOTYPE? Bangka: (insula archip. males. occ.), Soengeiliat, *Teysmann*, VERDOORN, HEP. SELECT. CRIT. 44 (CANM 10427).

Gongylanthus pringlei Steph., Sp. Hep. 3: 44. 1906.
ISOTYPE. Mexico: Michoacan, Patzcuaro, *C.G. Pringle*, UNDERWOOD & COOK, HEP. AMER. 106 (CANM 1379).

Jungermannia alpestris var. **litoralis** H. Arnell, Hepat. Galliae 207. 1901.
ISOTYPE. Sweden: Insula Scommarn, provinciae Gestrikland, *H. Arnell*, HUSNOT, HEP. GALLIAE 207 (CANM 5150).
= *Lophozia alpestris* (Schleich. *ex* Web.) Evans

Jungermannia cremuliformis Aust., Bull. Torrey Bot. Cl. 3: 10. 1872.
ISOTYPE. United States: New Jersey, Closter, *C.F. Austin*, AUSTIN, HEP. BOR. AMER. EXS. 31 (CANM 7262).

Jungermannia dumortieri Libert, Pl. Crypt. Ard. Exs. n. 311. 1837.
ISOTYPE. France: LIBERT, PL. CRYPT. ARD. EXS. 311 (CANM 13959).

Jungermannia hiugaensis Amak., J. Hattori Bot. Lab. 22: 6. 1960.
ISOTYPE. Japan: Kyushu, Miyazaki Co., Mr. Okue, *T. Amakawa*, HATTORI, HEP. JAP. 267 (CANM 10782).

Jungermannia novae-caesarese Evans, Bull. Torrey Bot. Cl. 20: 308. 1893.
SYNTYPE. United States: New Jersey, Atsion, *A.W. Evans*, UNDERWOOD & COOK, HEP. AMER. 172 (CANM 5364).
= *Lophozia laxa* (Lindb.) Grolle

Jungermannia plagiochiloides Amak., J. Hattori Bot. Lab. 22: 25. 1960.
ISOTYPE. Japan: Kyushu, Fukroka Pref., Tsukushi-abakei, *T. Amakawa*, HATTORI, HEP. JAP. 570 (CANM 4236).

Jungermannia rupicola Amak., J. Hattori Bot. Lab. 22: 23. 1960.
ISOTYPE. Japan: Kyushu, Miyazaki Pref., Mt. Okue NW of Nobeoka, *T. Amakawa*, HATTORIA, HEP. JAP. 572 (CANM 4251).

Jungermannia ventricosa var. **gemmipara** Hush., Hepaticologia Gallica 36. 1881.
ISOTYPE. France: Le Châtellier (Orne), HUSNOT, HEP. GALLIAE 34 (CANM 5473).
= *Lophozia ventricosa* (Dicks.) Dum. (sens. lat.)

Lejeunea cardoti Steph., Bot. Gaz. 17: 172. 1892.
SYNTYPE? Mexico: Patzcuaro, *C.G. Pringle*, UNDERWOOD & COK, HEP. AMER. 136 (as *Lejeunea (Micro-Lej.) cardoti* Steph.) (CANM 6172).

Lejeunea tsukiensis Miller & Bonner, Nova Hedwigia 11(Beih.): 56. 1963.
PARATYPE. Micronesia: Sorol, *H.O. Whittier & H.A. Miller 1212B* (CANM 4522).

Lepidolaena weindorferi Herz., Annales Bryol. 6: 103. 1933.
ISOTYPE. Australia: Tasmania, Wilmot, *Weindorfer*, VERDOORN, HEP.
SELECT. CRIT. 229 (CANM 10528).

Lophozia floerkii var. **hyperborea** Schust., Nat. Mus. Canada Bull. 164: 21. 1959.
PARATYPE. Canada: Northwest Territories, Ellesmere I., E side of U.S. Range, ca. 9-10 mi. W of Mt. Olga, *R.M. Schuster 35572* (CANM 790).
= *Barbilophozia hyperborea* (Schust.) R. Stotl. & B. Stotl.

Lophozia pellucida Schust., Can. J. Bot. 39: 978. 1961.
ISOTYPE. Canada: Northwest Territories, NE Ellesmere I., S end of Dumbbell Bay at head of Parr Inlet, S of Alert, *R.M. Schuster 35141* (CANM 5368).

Marchesinia trollii Herz., Annales Bryol. 5: 137. 1932.
ISOTYPE. Panama: Azuero, Cerro Canajaque, *K. Troll*, VERDOORN, HEP. SELECT. CRIT. 156 (CANM 10527).

Marsupella paroica Schust., Bryologist 60: 145. 1957.
PARATYPES. United States: Virginia, Smyth Co., near summit of White Top Mt., *R.M. Schuster 38064; 38086* (CANM 5880; 5881); Virginia, Grayson Co., near summit of Mt. Rogers, *R.M. Schuster 38005* (CANM 5883).

Marsupella pseudofunckii Hatt., J. Hattori Bot. Lab. 4: 63. 1950.
PARATYPE. Japan: Kyushu, Kumamoto, Hitoyoshi, *K. Mayebara*, HATTORI, HEP. JAP. 118 (CANM 5887; 10787).

Mastigolejeunea liukiuensis var. **mayebarae** Hatt., J. Jap. Bot. 26: 299. 1951.
PARATYPE. Japan: Kyushu, Kumamoto, Isshoochi, *K. Mayebara*, HATTORI, HEP. JAP. 140 (CANM 5959;10790).
= *M. humilis* (Gott.) Schiffn.

Metzgeria conjugata Lindb., Soc. Sci. Fennica 10: 495. 1875.
ISOTYPE. Ireland: Glena, *S.O. Lindberg*, 22 July 1873 (CANM 6021).

Microlejeunea rotundistipula var. **pallida** Hatt., J. Hattori Bot. Lab. 5: 53. 1951.
PARATYPE? Japan: Kyushu, Miyazaki, Obi, *S. Hattori & T. Kurata*, HATTORI, HEP. JAP. 84 (CANM 6184).
= *Lejeunea pallide-virens* Hatt.

Peltolepis quadrata var. **japonica** Shim. & Hatt., J. Hattori Bot. Lab. 12: 69. 1954.
ISOTYPE. Japan: Nagano Co., Akadake Peak of the Yatsu volcano, *D. Shimizu*, HATTORI, HEP. JAP. 278 (CANM 6826; 10786).
= *P. japonica* (Shim. & Hatt.) Hatt.

Plagiochila allorgei Herz. & H. Perss., Rev. Bryol. Lich. 14: 161. 1944.
ISOTYPE. Azores: S. Miguel, Furnas, V. & P. ALLORGE, BRYOPHYTA AZORICA 18 (CANM 6851).

Plagiochila confundens var. **alpinoides** Herz., Annales Bryol. 4: 126. 1930.
ISOTYPE? Panama: Peninsula Azuero, Cerro Canajaque, *K. Troll*, VERDOORN, HEP. SELECT. CRIT. 9 (CANM 10526).

Plagiochila echinata Schust., Amer. Midland Natural. 62: 341. 1959.
PARATYPES. United States: South Carolina, Pickens Co., near the "Narrows" of Estatoe Creek gorge, *R.M. Schuster 37624; 37625* (CANM 7098; 7097).
= *P. euryphyllon* ssp. *echinata* (Schust.) Inoue

Plagiochila monticola Schiffn., Denkschr. Mat. Nat. Cl. K. Akad. Wiss. Wien 70: 181. 1900.
ISOTYPE. Java Occ.: Res. Priangan, G. Gede, G. Pangrango, *V. Schiffner*, VERDOORN, HEP. SELECT. CRIT. 123a (CANM 10525).

Plagiochila monticola f. **intermedia** Herz., Annales Bryol. 5: 130. 1932.
ISOTYPE. Java Occ.: Res. Priangan, G. Gede, G. Pangrango, *F. Verdoorn*, VERDOORN, HEP. SELECT. CRIT. 123b (CANM 10525).

Plagiochila neorichardsii Inoue, Bull. Nat. Sci. Mus. Tokyo, ser. B, 3: 135. 1977.
ISOTYPE. Mexico: Oaxaca, Sierra Juarez, above Valle Nacional, *D. Richards, A.J. & E. Sharp*, INOUE, BRY. SELECTA EXS. 417 (CANM 17447).

Plagiochila rigidula Hatt. & Inoue, J. Hattori Bot. Lab. 20: 61. 1958.
PARATYPE? Japan: Honshu, Saitama Pref., Ochigawa, valley in Chichibu montane area, H. Inoue, HATTORI, HEP. JAP. 482 (CANM 7176).
= *P. subrigidula* Inoue

Plagiochila satoi var. **integerrima** Hatt., J. Hattori Bot. Lab. 12: 84. 1954.
ISOTYPE. Japan: Saitama Co., Mt. Kobushi of the Chichibu Mts., *D. Shimizu*, HATTORI, HEP. JAP. 284 (CANM 7177; 10783).

Plagiochila semidecurrens var. **shimizuana** Inoue, J. Hattori Bot. Lab. 20: 81. 1958.
ISOTYPE. Japan: Honshu, Yamanashi Co., S. Alps, Mt. Kitadake, *D. Shimizu*, HATTORI, HEP. JAP. 285 (CANM 7203; 10784).

Plagiochila takakii Inoue, Kurokawa, Studies Cryptogams Pap. N. Guin. 11. 1979.
ISOTYPE. Papua New Guinea: Chimbu Dist., Mt. Wilhelm, around Lake Aunde, *N. Takai*, INOUE, BRY. SELECTA EXS. 466 (CANM 18259).

Plagiochila unialata Inoue, J. Hattori Bot. Lab. 3 2: 112. 1969 .
PARATYPE. Taiwan: between Tuli Shan and Hoping, Tai-Ping Shan, Ilan Hsien, *H. Inoue*, INOUE, BRY. SELECTA EXS. 119 (CANM 12356).

Plagiochila yokogurensis ssp. **fragilifolia** Schust., J. Hattori Bot. Lab. 18: 18. 1957
PARATYPES? United States: North Carolina, Columbus Co., 1.5 mi. E of Whiteville, *R.M. Schuster 30045* (CANM 7105); North Carolina, McDowell Co., along Rte 221, ca. 2.7 mi. N of juncture with Rte 26, N of Woodlawn, *R.M. Schuster 29592a* (CANM 7104; 7106).

Plectocolea hattoriana Amak., J. Jap. Bot. 33: 341. 1958.
ISOTYPE. Japan: Nagano Pref., Yatsu Mts., *D. Shimizu*, HATTORI, HEP. JAP. 444 (CANM 7270).
PARATYPE. Japan: Yamanashi Pref., Mt. Kaikoma, D. Shimizu, HATTORI, HEP. JAP. 569 (CANM 7269).
= *Jungermannia hattoriana* (Amak.) Amak.

Plectocolea rubripunctata Hatt., J. Hattori Bot. Lab. 3: 41. 1948.
PARATYPE. Japan: Kyushu, Miyazaki, Kitamoro, Nakago, *S. Hattori*, HATTORI, HEP. JAP. 60 (CANM 7321).
= *Jungermannia rubripunctata* (Hatt.) Amak.

Porella acutifolia ssp. **latior** Hatt., J. Hattori Bot. Lab. 32: 325. 1969.
PARATYPE. Ceylon: Horton Planes, Nuwara Eliya, *H. Inoue*, INOUE, BRY. SELECTA EXS. 218 (CANM 14977).

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ISOTYPE. United States: South Carolina, Pickens Co., western branch of Estatoe Creek, *R.M. Schuster 37620* (CANM 7557; 7577).

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ISOTYPE. Japan: Nagano Co., Miwamura, Shiroiwa Valley, *N. Takaki*, HATTORI, HEP. JAP. 241 (CANM 7753).
= *P. oblongifolia* Hatt.

Porella vernicosa Lindb., Acta Soc. Sci. Fennica 10: 224. 1872.
ISOTYPE. Japan: Kyushu, Nagasaki, *A. Maximowicz*, 5 April 1863 (CANM 7765).

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ISOTYPE. Japan: Yamanashi Co., S. Alps, Mt. Asayo, *D. Shimizu*, HATTORI, HEP. JAP. 290 (CANM 7888; 10785).

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PARATYPE. Japan: Kyushu, Miyazaki, Obi, *S. Hattori & T. Kurata*, HATTORI, HEP. JAP. 85 (CANM 8174).

Radula holtii Spruce, J. Bot., Brit. Foreign (N.S. 16) 25: 209. 1887.
ISOTYPE. Ireland: Killarney, Torc Waterfall, *G.A. Holt*, CARRINGTON & PEARSON, HEP. BRIT. EXS. 273 (CANM 8333).

Riccardia elongata Schiffn., Akad. Wissen. Wien, Math.-Naturw. Klasse, Denkschr. 67: 164. 1899.
SYNTYPE? Java Occ.: Res. Batavia, G. Salak, *V. Schiffner*, VERDOORN, HEP. SELECT. CRIT. 179 (CANM 10524).

Riccardia innovata S. Arnell, Arch. Soc. Zool. Bot. Fenn. "Vanamo" 9: 50. 1954.
ISOTYPE. Chile: (Fuegia Occ.) Fjordo Alvirante Martinez, Bahia Sarmiento, *H. Roivainen* 2366 (CANM 8454).

Riccardia kodamae Mizut. & Hatt., J. Hattori Bot. Lab. 18: 57. 1957.
PARATYPE. Japan: Miyazaki Pref., western Nichinan, Fukaze, *M. Mizutani*, HATTORI, HEP. JAP. 496 (CANM 8455).

Riccardia maxima Schiffn., Akad. Wissen. Wien, Math.-Naturw. Klasse, Denkschr. 67: 177. 1899.
SYNTYPE? Java Occ.: Res. Priangan, G. Gede, *V. Schiffner*, VERDOORN, HEP. SELECT. CRIT. 180 (CANM 10523).

Riccardia opuntiaeformis S. Arnell, Arch. Soc. Zool. Bot. Fenn. "Vanamo" 9: 52. 1954.
ISOTYPE. Chile: (Fuegia Occ.) Canal de Keats, Puerta Queta, *H. Roivainen 2513* (CANM 8565).

Riccia americana M.A. Howe, Mem. Torrey Bot. Cl. 7: 24. 1899.
SYNTYPE. United States: California, San Francisco, above Mission Dolores, *M.A. Howe & E.S. Byxbee*, HAYNES, AMER. HEP. 1 (CANM 8772).
= *R. austinii* Steph.

Riccia brasiliensis Schiffn., Oesterr. Akad. Wiss., Math.-Naturw. Klasse, Denkschr. 3: 6. 1964.
ISOTYPE. Brazil: Prov. Parana, Paranapanema R., *V. Schiffner 2395* (CANM 15309).

Riccia lescuriana Aust., Proc. Acad. Nat. Sci. Phil. 21(1869): 232. 1870.
ISOTYPE? United States: New Jersey, Closter, *C.F. Austin*, AUSTIN, HEP. BOR. AMER. EXS. 143 (CANM 8672).
= *R. beyrichiana* Hampe *ex* Lehm.

Riella battandieri Trab., Rev. Bryol. 13: 35. 1886.
ISOTYPE. Africa: environs de Maison-Blanche près Alger, *L. Trabut*, HUSNOT, HEP. GALLIAE 173 (CANM 8886).

Riella cossoniana Trab. *in* Batt. & Trab., Atlas Fl. Alger 6. 1886.
ISOTYPE. Algeria: El Kreider, *Trabut (Cosson?)*, HUSNOT, HEP. GALLIAE 174 (CANM 8883).

Riella numidica Trab., Bull. Soc. Hist. Nat. Afrique Nord 25: 391. 1934.
SYNTYPE. Algeria: Chott Hodna à Baniou, *L. Trabut* (CANM 8887).

Riella reuteri Mont., Ann. Sci. Nat. Sér. 3,18: 12. 1852.
ISOTYPE. Switzerland: near Geneva, *M. Reuter*, November 1851 (CANM 8885).

Scapania nemorosa var. **intermedia** Husn., Hepaticologia Gallica 22. 1881.
ISOTYPE. France; Mont-Dore (Puy-de-Dôme), *M. Lamy de la Chapelle*, HUSNOT, HEP. GALLIAE 65 (CANM 8251).
= *S. undulata* (L.) Dum.

Scapania undulata var. **minor** Lamy *ex* Husn., Hepaticologia Gallica 20. 1881.
ISOTYPE. France: Quenouille, commune de Peyrat-le-Château (Haute-Vienne), *M. Lamy de la Chapelle*, HUSNOT, HEP. GALLIAE 63 (CANM 9529).

Schofieldia monticola Godfr., Bryologist 79: 315. 1976.
ISOTYPE. United States: Washington, Whatcom Co., Mt. Baker National Forest, vicinity of Austin Pass picnic area, *J.D. & G.A. Godfrey 3330* (CANM 16866).

Takakia lepidozioides Hatt. & Inoue, J. Hatt. Bot. Lab. 19: 137. 1958.
ISOTYPE. Japan: Middle Japan, Mt. Shirouma, *H. Inoue*, 27 July 1957 (CANM 9863).

Tylimanthus azoricus Grolle & H. Perss., Svensk. Bot. Tidskr. 60: 169. 1966.
PARATYPE. Azores: Flores, Ribeira Grande, V. & P. ALLORGE, BRYOPHYTA AZORICA 20 (CANM 10237).

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